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## A Coding System for Describing Factors Related to Military Operations



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OPERATIONAL LOGISTICS DIVISION  
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# A Coding System for Describing Factors Related to Military Operations

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by  
Louis C. Peltier

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## **FOREWORD**

This paper was prepared as a result of a suggestion made by Mr. Warren Grabau of the Army Engineers Waterways Experiment Station in Vicksburg, Miss. It was subsequently requested by Dr. Clark Crain, Project Leader of Project DUTY of the Advanced Research Projects Agency. This paper constitutes a part of the results of RAC Study IR-208.

**Roland G. Ruppenthal**  
Chief, Operational Logistics  
Division

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### **Problem**

To present by means of coding tables an improved and expanded system of organizing information descriptive of factors bearing on military operations for use in research.

### **Facts**

Several environmental coding handbooks and lists of environmental factors pertinent to military activities have been prepared in the past.

Cross correlations between environmental and/or operational factors and the effects they induce have been limited in effectiveness because the lists of factors considered have been inadequate. In the interests of keeping the study simple, reducing the number of measurements or observations, or because appropriate scales of measurement did not exist, the tendency has been to give most attention to the simple environment-and-response relation and comparatively little to more complex relations such as that of the mission-environment-organization-tactics-response combination.

### **Discussion**

There is a need for a system that would permit researchers in the military field to compare and correlate such widely variant factors as combat organization, materiel performance, environmental condition, and success of mission. It seemed desirable so to organize these data that a correlation between characteristics of military operational experience and of operational environments could be explored.

A coding handbook that combines the coding systems used in descriptions of materiel performance, historical records of military operations, and descriptions of environmental conditions has been formulated. To explore the military meanings of the characteristics of places it seems essential to begin with the formulation of just such a complex matrix as is presented here. A conceptual skeleton of this kind is needed as an aid to the organization of a wide range of historical experiences and experimental results. It is needed as an aid or tool in the exploration of military-environmental relations and the testing of conceptual models for prediction.

## SUMMARY

This coding handbook is presented as an aid in the identification and correlation of elements and factors that are of importance in the study of military environments and military operations; it shows how they can be numerically identified. The characteristics of the storage and retrieval system or systems that might be used in the employment of this system are outside the scope of this paper.

It is anticipated that this system will facilitate area analysis and contribute to increased speed and effectiveness of military planning. It should also contribute to the study of optimum standards or criteria for the design of materiel; the structuring of military organizations, tactical systems, or operating procedures; and the formulation of training programs for the various military theaters of operation. The system presented here is a tool for research in the fields of computer simulation of battle and simulation of logistical support, for the establishment of requirements for types of organization and equipment, and for the evaluation of military capability under specific circumstances.

**A Coding System  
for Describing Factors  
Related to Military Operations**

## INTRODUCTION

### NEED

The coding system presented in this paper was prepared in recognition of several very different needs. It would be presumptuous to try to delineate all possible future uses for a scheme for organizing and comparing a complex body of information. However, experience with this and similar codes has demonstrated potential usefulness in such areas as are presented below.

The general problem of military science, of which this problem is but a part, may be stated: "What is the precise nature of military activities, expressed in quantitative and interrelated terms?" A related problem is: "What is the magnitude of the effect of environmental conditions at a specific place on a specific military activity?" Research related to this latter problem has many uses for lists or coding systems of the kind presented in this paper. They have been or could be used in:

- (a) establishment of a research and development (R&D) program through the identification of requirements for new capabilities or properties of materiel;
- (b) formulation of a program of test and evaluation through the identification of places and times at which desirable test conditions existed;
- (c) establishment and improvement of a program for intelligence collection through the development of new uses of data and new, expanded, or improved methods of data collation and interpretation;
- (d) establishment and improvement of supply systems through increased consideration of special conditions and unusual consumption rates in the specific areas to be supplied;
- (e) development of improved tactical doctrine and improved aids and systems for training through an increased consideration of specific conditions in areas of potential military importance;
- (f) the development of improved systems for the evaluation of readiness, efficiency, strength, capability, and requirements through improved understanding of the complex relations between organization type and size, training, equipment, mission, tactics, and environmental conditions.

The list and coding key presented below represent an attempt to combine and add to the advantages of previous lists and to handle both past and potential events in a single system. It is formulated on the assumption that the most efficient data code is the one that is most flexible and serves the greatest number of users. It is intended that this handbook should be used to describe activities of all services, all missions, all places, and all times. It is not

necessary for complete data to be at hand, but it is intended that there be a place for available information.

This key is designed to permit the ready inclusion of data from earlier studies and of supporting and more detailed information concerning organization, mission, tactics, operations, and environments. No particular processing procedure is intended or implied.

## EVOLUTION

Various coding keys for the organization of data—or the storage and retrieval of data—concerning the relation between environmental conditions and military activities have been prepared in the past. It seems appropriate to mention the following six:

Sherman List.<sup>1</sup> This comprehensive list of environmental factors of military importance (part of which is reproduced in ORO-R-4<sup>1</sup>) was prepared about 1949 and was used in the development of a program of research in environmental protection in the Office of the Quartermaster General.

Clark University List.<sup>2</sup> This list, also very comprehensive, was compiled by the School of Geography, Clark University, in 1952–54. It pointed out the wide variance in definitions of environment and the variance associated with changes in the scale of the problem.

ACE Committee List.<sup>3</sup> This list originated in the Panel on Environmental Research of the Army Committee on Environment in 1960. Unlike the others it sought to reduce the list of factors to those it had reason to believe were of greatest importance, and was essentially limited to measurable atmospheric and terrain factors. The list was approved and circulated by CONARC as guidance in the development of environmental test programs.

Envanal List.<sup>4</sup> This list was inherent in the Envanal (Environmental Analysis of Military Items and Equipment) System proposed in 1954 by Dunlap and Associates. Although the system allowed for terrain factors, emphasis was placed on climatic factors and on the relation between climate and performance. Records of environmental tests of ordnance equipment in the Envanal format are still being kept by the Southwest Research Institute acting under contract with the Ordnance Corps and more recently by the Army Materiel Command.

George Washington University List.<sup>5</sup> This list, used by the George Washington University School of Engineering in its 1956 study of the effects of environment on military activities as indicated in the historical records of WWII and Korea, is very different. For the first time the descriptive elements of organization, activity mission, environmental element, materiel, personnel, and effects were combined into a single system that permitted comparison and correlation. This study demonstrated that it was feasible in concept to explore the military meaning of environmental conditions by comparing them with military experience under those conditions.

University of South Carolina List.<sup>6</sup> This list, prepared in 1959 by the Geology Department of the University of South Carolina, is essentially an expansion of the George Washington University list. This contract report is interpreted as verifying the conceptual feasibility of testing the military

relevance of environmental conditions by the use of published data. This study gave greater attention to doctrine and test results than the George Washington University list, which emphasized after-action reports.

Coding systems and environmental-factors lists have tended to be limited in scope and primarily intended to serve the interests and objectives of either intelligence, R&D, testing, or planning. However, the evolution of these lists and systems is interpreted to indicate a trend toward consideration of the effects of groups of environmental factors that coexist in time and place and toward the prediction of performance from the analysis of environments.

It is appropriate to allow for the extension of these trends and also for the introduction and simultaneous consideration of data that come from a variety of different sources but increase the understanding of the conditions and activities at a particular place at a particular time. Thus for example an after-action report might be augmented by a report of test results on equipment used, intelligence reports, weather records, and separately derived terrain measurements in an effort to derive the fullest understanding of the event.

A reader who compares the tables in the Coding Handbook of the Historical Records Project of the George Washington University (1954)<sup>1</sup> and the Coding Handbook of the Historical Records study of the University of South Carolina (1959)<sup>2</sup> with the tables presented here will notice an essentially consistent trend toward quantitative expression, increased precision, added detail, and greater breadth of interest. By such comparison it may be found that scales for the expression of four additional considerations have been introduced: (a) comparison of opposing forces; (b) description of tactics and the geometry of battlefields; (c) description of civil affairs and the social, economic, and political environment; and (d) more detailed and quantitative description of other environmental conditions. The scope and flexibility of the tables have been increased by removing the limitations on the time span in the data code, allowing for records of obsolete equipment and for a separation of missions and functions from any particular organizational structure.

Insofar as seemed feasible, preexisting scales, tables, and descriptive methods were used. The vegetation codes are expressed by six height categories or strata of plant associations and are further expressed in terms of diameter of stems at breast height, continuity of crowns, and characteristics of foliage in accord with already established methods for the description of the structure of plant associations. The soil code is expressed in terms of the Army unified soils classification system.<sup>7</sup> The economic structure is encoded in terms used by the US Bureau of the Census.<sup>8</sup> The weather elements are essentially expressions of the international weather code as used by the US Weather Bureau.<sup>9</sup>

A different basis for the coding of materiel is used. Earlier codes have been based on the Federal supply classification. In the interests of simplicity and freedom to include obsolete items of equipment or items that may be invented in the future, a different classification is used. It is derived from the standard industrial code<sup>8</sup> and organized in terms of military function. Increased flexibility in the designation of materiel is also gained by increasing the space allowed for the item name over that allowed in the Envanal system.<sup>4</sup> In this way military elephants might be included even if they did not appear in the Federal Supply Catalogue.

In a few of the tables, such as those related to tactics and operational performance and effects, it seemed desirable to invent scales of description. However, most of the other tables are drawn from previously existing scales and were modified in the interests of increased detail, increased flexibility, or increased applicability. Preference was given to expression in terms of actual reported measurements or numbers.

#### CODING SYSTEM STRUCTURE

The coding system presented below consists of 10 parts:

1. Identifiers, including the general kind of environment and geographical location and date of the incident. It is designed to permit the mechanical retrieval of data by region or coordinate system as well as by subject and period.
2. Descriptors, including nationality, organization, unit size, unit composition, mission, and tactics of both opposing forces.
3. Operational elements, including environmental elements, functions and functional systems, and tactical applications and results (Tables 17-24).
4. Personnel and materiel, including identification, action status, and performance characteristics.
5. Atmospheric environment, including visibility, temperature, humidity, wind, snow, clouds, and weather type.
6. Geologic environment, including elevation, relief, texture, micro-relief, slope, soil, and state of the ground.
7. Hydrographic environment, including depth, surf, current, temperature, ice, and bottom conditions.
8. Biological environment, including vegetation and animals.
9. Cultural environment, including population density, literacy, labor force, employment, religion, language, social agglomeration, political structure, government, and transportation.
10. Geometry, including line of combat, geometry of the battle zone, and range of action.

The application of this coding system is illustrated by a sample work sheet presented in Fig. 1. It represents the organization of information derived from published sources. The relation between raw data and encoded information is shown in Sample Table 1. Here a single event, the first presented in Fig. 1, is illustrated in greater detail. This event describes action near Aitape on New Guinea in 1944. Pertinent information is quoted from a published source; the code data are presented and the interpretation of the coded data is given. Inputs can be compared with retrieved information. For the purposes of this illustration, data from several sources have been included.

Sample Table 1 illustrates the limitations of encoded data, for in the interests of achieving comparability between events a standard list of descriptive terms is used. This results in a certain loss of detail and of accuracy and specificity of description.

The coding keys have developed empirically in response to various needs over a period of at least two decades. They are the products of evolutionary

growth influenced by successive redefinitions of terms, by improved means of measuring environments and military effects, and by increased understanding of the interaction between environments and military affairs. In order to facilitate the use of already-coded data, the previous coding systems were altered as little as possible in the development of this code.

In terms of simplicity and ease of handling data it is unfortunate that the environmental analysis of military affairs does not fit into a smaller and more compact framework. However, neither military activities nor the environments in which they are conducted are simple matters. Even though this key is 2 or 3 times larger than its predecessors, it is likely also to prove to be too abbreviated. All possible questions cannot be anticipated; no one can foresee all future needs. Therefore an allowance has been made in the construction of these tables for the addition of at least a moderate amount of new or other factors. On the other hand if the military meaning of environments and the military evaluation of geographic places are to be contemplated, some matrix such as is here described must be involved.







SAMPLE TABLE 1  
Example of Coded Information<sup>a</sup>  
(Item 1 of Figure 1)

Code	Category of data	Interpretation
8	General environment	Land-sea
4	Major land area	Australia
006	Specific land unit	Northeast New Guinea
—	Major sea area	Not reported, not applicable
—	Specific sea unit	Not reported, not applicable
2	Latitude indicator	South
07	Degrees	7 deg south
—	Minutes	Not reported
1	Longitude indicator	East
143	Degrees	143 deg east
—	Minutes	Not reported
	Date of beginning of event	
10	Day	10th day
07	Month	7th month (July)
1	Era	A.D.
1944	Year	1944
4	Duration of event, unit	In months
01	Duration of event	One month
	Reporting force	
6058	Nationality	North America, United States
009	Organization	Army or Joint Task Force
06	Size	Brigade
004	Mission	Seize and hold ground
5	Employment of unit	Available, employed, limited performance
12	Tactical disposition	Separated bodies, mutually supporting, deployed, dispersed
31	Tactics employed	Counterattack
	Opposing force	
3082	Nationality	Asia, Japan
003	Organization	Corps
03	Size	Corps
001	Mission	Assault over ground
6	Employment	Available, employed, unsatisfactory performance
12	Tactical disposition	Separated bodies, mutually supporting, deployed, dispersed
02	Tactics employed	Frontal attack
03	Major environmental element	Rainfall
22	Contributing environmental element	Slopes
41	Contributing environmental element	Underbrush
42	Contributing environmental element	Swamp and marsh
04	Basic functions of personnel	Sense perception
16	Extensions of basic functions	Communications systems
04	Organizational functions	Intelligence
35	Tactical use of environment by reporting force	Shelter or cover by vegetation

SAMPLE TABLE 1 (continued)

Code	Category of data	Interpretation
24	Tactical use of environment by opposing force	Concealment, general
04	Tactical results to reporting force	Held
05	Tactical results to opposing force	Repelled
5	Level of mission accomplishment by reporting force	Accomplished but delayed
9	Level of mission accomplishment by opposing force	Mission failed
2	Effect of environmental elements on the level of accomplishment of mission of reporting forces	Contributed to accomplishment of mission
7	Effect of environmental elements on the level of accomplishment of mission of opposing forces	Contributed to failure of mission
40	Materiel	Communications equipment
None	Name of item	Radio equipment
12	Materiel performance characteristics	Unsatisfactory, failed to perform normal function
07	Action status	Static materiel, combat, temporarily emplaced
	Performance	
05	Command, Administration, Management	Limited satisfactory, required addition of equipment and/or personnel
14	Communications	Unsatisfactory, failed to perform normal function
11	Intelligence	Limited satisfactory, insufficient numbers or size of organization to perform normal functions
07	Infantry	Limited satisfactory, functioned at reduced efficiency, speed, or reliability
—	Cavalry	Not reported
07	Artillery	Limited satisfactory, functioned at reduced efficiency, speed, or reliability
12	Armor	Limited satisfactory, little used
12	Strategic air	Limited satisfactory, little used
12	Tactical air	Limited satisfactory, little used
—	Air transport	Not reported
—	Air defense	Not reported
—	Naval combat	Not reported
—	Naval escort and patrol	Not reported
—	Naval amphibious	Not reported
—	Naval transport	Not reported
—	Supply and distribution	Not reported
—	Medical service	Not reported
—	Construction	Not reported
—	Civil affairs	Not reported
13	Navigation	Unsatisfactory, function obstructed or prevented

SAMPLE TABLE 1 (continued)

Code	Category of data	Interpretation
1	Speed of movement, unit	Feet per hour
300	Speed of movement (average)	300 ft/hr
2	Visibility, unit	Minimum horizontal visibility
00005	Visibility in yards	5-yd minimum range
	Temperature	
—	Critical	Not reported
—	Minimum	Not reported
—	Maximum	Not reported
—	Relative humidity	Not reported
90	Weather	Thunderstorms
—	Wind force	Not reported
—	Snow depth	Not reported
—	Cloud cover	Not reported
—	Ceiling	Not reported
—	Atmospheric visibility	Not reported
—	State of sea	Not reported
00	Altitude	< 1000 ft
—	Landform relief	Not reported
—	Composite landforms	Not reported
—	Topographic texture	Not reported
—	Microrelief—roughness	Not reported
—	Microrelief—obstacles	Not reported
—	Critical slope	Not reported
—	Soil type	Not reported
3	State of ground	Moist
—	Water depth	Not reported
—	Surf height	Not reported
—	Beach gradient	Not reported
—	Current	Not reported
—	Ice thickness	Not reported
—	Water temperature	Not reported
	Vegetation	
1	Ground cover	Continuous cover except for other larger plants
1	Low shrubs and grasses	Continuous cover except for other plants
03	Brush	Continuous cover, open with foliage
14	Low trees	Discontinuous cover, interspersed with patches of bare soil, rock or smaller plants, open, large stems with foliage
18	High trees	Discontinuous cover
—	Very high trees	Not reported
—	Animals	Not reported
01	Density of indigenous population	0–2 per square mile
—	Literacy rate	Not reported
—	Labor force participation ratio	Not reported
—	Unemployment	Not reported

SAMPLE TABLE 1 (continued)

Code	Category of data	Interpretation
	Employment structure	
8	Agriculture, forestry, fishing	81-90% of labor force
—	Minerals	Not reported
—	Manufacturing	Not reported
—	Construction	Not reported
—	Trade	Not reported
—	Utilities	Not reported
—	Finance	Not reported
—	Professional services	Not reported
—	Personal services	Not reported
—	Government	Not reported
	Social structure	
2	Religions	2 significant religions
—	Language	Not reported
—	Agglomeration	Not reported
—	Political structure	Not reported
5	Government	Protectorate or territory
—	Transportation routes	Not reported
	Geometry	
—	Line of combat	Not reported
—	Command position	Not reported
—	Reserves	Not reported
—	Range of action	Not reported
None	Source of information <sup>a</sup>	Smith, Robert R., "The Approach to the Philippines" <sup>b,10</sup>

<sup>a</sup>For purposes of this illustration, information from several sources has been included.

<sup>b</sup>Major source of information encoded in Sample Table 1.

[Battle of the Driniumor (Aitape) 10 July to 11 August 1944<sup>10</sup>]

The situation in the 2d Platoon's sector was quite different [July 13]. There the ground was covered with Sago palms, underbrush, and heavy jungle growth which limited visibility to five or ten yards. The platoon ran into concentrated rifle and machine gun fire immediately after starting its attack and was unable to force a crossing of the small stream . . . . Because the dense rain forest masked their fires, mortars and heavy machine guns could not support further advances in the inland sector. [pp 118-119]

Radio communications presented no particular problems in the coastal region, but inland radio trouble was chronic and sometimes acute. Radio range was limited, especially at night, by dense jungle and atmospheric conditions, while almost daily tropical storms originating over the Torricelli Mountains hampered both transmission and reception. At times the only way radio could be employed in the Afua area was by having artillery liaison sets transmit to artillery liaison planes flying directly overhead. [p 128]

The 2d Squadron [10 July] did not follow any trail but . . . cut its way through heavy jungle over alternately hilly and swampy terrain. The nature of the terrain slowed progress so much that . . . [in 4½ hours] the squadron . . . [had not advanced] more than a mile. . . . [p 139]

Terrain difficulties, aggravated by the rain, forestalled progress that night [11-12 July], and at 1845 Col. Bloch's group bivouacked for the night . . . only one and a half miles west of the starting point [which they left at 1530]. [p 157] . . . the 3d Battalion . . . was held up by a Japanese force of platoon strength. In the dense jungle it was almost an hour before the Japanese could be dispersed and the advance continued. [p 163]

Patrolling thoroughly in heavily jungled terrain, the battalion [1st Bn, 127th Inf.] bivouacked for the night of 18-19 July some 400 yards west of its objective. [p 169]

Actually, neither the Japanese nor South Force had any accurate knowledge of each other's strengths and dispositions in the Afua area. Each side complained that the other held isolated strong points, none of which appeared to be key positions. Both sides employed inaccurate maps, and both had a great deal of difficulty obtaining effective reconnaissance. In the jungled, broken terrain, near Afua, operations frequently took a vague form—a sort of shadow boxing in which physical contact of the opposing sides was oftentimes accidental. [p 182]

The unit [Burns' battalion] encountered no opposition but found itself in such a maze of steep ridges and deep gullies that the pace of advance was slowed to little more than 100 yards per hour. After marching over ten hours and covering over 1,000 yards . . . . [p 195]

Radio communication between battalions, from battalions to TED Force headquarters, and from the latter to higher echelons was nearly nonexistent, for the heavy jungle and the damp weather cut down the efficiency of all radio equipment. [pp 194-195]

# CODING TABLES

Column	Category	Number	Item
Identifiers			
Card			
1	General environment	0	Air-air
		1	Air-sea
		2	Air-land
		3	Air-undersea
		4	Sea-sea
		5	Sea-land
		6	Sea-undersea
		7	Undersea
		8	Land-land
		9	Land-sea-air
2	Major land area	0	Antarctica
		1	Arctic islands
		2	Africa
		3	Asia
		4	Australia
		5	Europe
		6	North America
		7	Pacific islands
		8	South America
		9	Other islands
3, 4, and 5	Geographical unit <sup>a</sup> by major land area		Antarctica
		0	Adélie Land
		1	Coats Land
		2	Edith Ronne Land
		3	Enderby Land
		4	Marie Byrd Land
		5	Palmer Peninsula
		6	Polar Plateau
		7	Queen Maud Land
		8	Victoria Land
		9	Wilkes Land
			Arctic islands
		01	Amund Ringnes I.
		02	Axel Heiberg I.
		03	Baffin I.
		04	Banks I.
		05	Bathurst I.
		06	Bear I.
		07	Bear Is.
		08	Bolshoi I.
		09	Borden I.
		10	Brock I.
		11	Brusevitz I.

<sup>a</sup>The list of geographical units in this table is not intended to be complete. The names that have been used to describe areas and places seem endless. The use of letters in addition to code numbers is recommended to describe additional units.

CODING TABLES (continued)

Column	Category	Number	Item
		12	Coats I.
		13	Cornwall I.
		14	Cornwallis I.
		15	Devon I.
		16	Ellef Ringnes I.
		17	Ellesmere I.
		18	Findlay Is.
		19	Fridtjof Nansen Is.
		20	Great Lyakhov Is.
		21	Greenland
		22	Jan Mayen I.
		23	King William I.
		24	Kolguev I.
		25	Lockheed I.
		26	Mansel I.
		27	Meighen I.
		28	Melville I.
		29	Mill I.
		30	New Siberian Is.
		31	Northeast Land
		32	Novaya Zemlya
		33	Prince of Wales I.
		34	Prince Patrick I.
		35	Salisbury I.
		36	Severnaya Zemlya
		37	Solitude I.
		38	Somerset I.
		39	Southampton I.
		40	Spitzbergen
		41	Sverdrup I.
		42	Victoria I.
		43	Vilkitski I.
		44	White I.
		45	Wrangel I.
			Africa
		01	Algeria
		06	Angola, general
		07	Benguela
		08	Bihe
		09	Congo
		10	Cuanza Norte
		11	Cuanza Sul
		12	Cubango
		13	Huíla
		14	Lunda
		15	Malange
		16	Mossâmedes
		17	Moxico
		18	Zaire
		19	Basutoland
		20	Bechuanaland
		21	Burundi
		22	Cameroun, general
		23	Adamawa



CODING TABLES (continued)

Column	Category	Number	Item
		24	Central African Republic, general
		25	Ubangi-shari
		26	Chad
		27	Congo (Brazzaville)
		28	Congo (Leopoldville), general
		29	Congo
		30	Eastern Province
		31	Equator
		32	Kasai
		33	Katanga
		34	Dahomey
		35	Egypt
		36	Ethiopia, general
		37	Amhara
		38	Danakil
		39	Eritrea
		40	Galla
		41	Harar
		42	Ogaden
		43	French Somaliland
		44	Gabon
		45	Gambia
		46	German East Africa, general
		47	Kenya
		48	Tanganyika
		49	Uganda
		50	German Southwest Africa, general
		51	Amboland
		52	Damaraland
		53	Namaland
		54	Ghana, general
		55	Ashanti
		56	Gold Coast
		57	Guinea
		58	Ifni
		59	Ivory Coast
		60	Liberia
		61	Libya, general
		62	Cyrenaica
		63	Fezzan
		64	Tripolitania
		65	Malagasy Republic
		66	Mauritania
		67	Morocco
		68	Mozambique, general
		69	Inhambane
		70	Lourenço Marques
		71	Niger
		72	Nigeria
		73	Northern Rhodesia

CODING TABLES (continued)

Column	Category	Number	Item
		74	Nyasaland
		75	Portugese Guinea
		76	Rio Muni
		77	Ruanda
		78	Senegal
		79	Sierra Leone
		80	Somalia, general
		81	British Somaliland
		82	Italian Somaliland
		83	South Africa, general
		84	Cape Province
		85	Natal
		86	Orange Free State
		87	Transvaal
		88	Southern Rhodesia
		89	Spanish Morocco
		90	Spanish Sahara
		91	Sudan, general
		92	Bahr el Ghazal
		93	Dar Fur
		94	Kordofan
		95	Nubia
		96	Swaziland
		97	Togo
		98	Tunisia
		99	Upper Volta
			Asia
		01	Aden
		02	Afghanistan
		03	Bhutan
		04	Brunei
		05	Burma, general
		06	Lower Burma
		07	Tenasserim
		08	Upper Burma
		09	Ceylon
		10	China, general
		11	An-hwei
		12	Che-kiang
		13	Chinghai
		14	Fu-kien
		15	Ho-nan
		16	Hong Kong
		17	Hu-nan
		18	Hu-peh
		19	Inner Mongolia, general
		20	Chahar
		21	Jehol
		22	Ningsia
		23	Suiyuan
		24	Kan-su
		25	Kiang-si
		26	Kiang-su
		27	Kwang-si

## CODING TABLES (continued)

Column	Category	Number	Item
		28	Kwang-tung
		29	Kwei-chow
		30	Liao-hsi
		31	Manchuria, general
		32	Hei-lung-kiang
		33	Kirin
		34	Liaoning
		35	Mongolia (Outer Mongolia)
		36	Peiping
		37	Shan-si
		38	Shan-tung
		39	Shen-si
		40	Sikiang
		41	Sinkiang
		42	Sze-chuan
		43	Taiwan (Formosa)
		44	Tibet
		45	Yun-nan
		46	French Indochina
		47	Annam
		48	Cambodia
		49	Cochin-china (S. Vietnam)
		50	Laos
		51	Tonkin (N. Vietnam)
		52	India, general
		53	Assam
		54	Bihar
		55	Bombay
		56	Hyderabad
		57	Madras
		58	Mysore
		59	Nagpur
		60	Orissa
		61	Rajputana
		62	Travancore
		63	Indonesia, general
		64	Bali
		65	Biak
		66	Borneo
		67	Buru
		68	Celebes
		69	Flores
		70	Halmahera
		71	Java
		72	Morotai
		73	Serang
		74	Sula
		75	Sumatra
		76	Sumbwa
		77	Timor
		78	West Irian (Netherlands New Guinea)
		79	Iran
		80	Iraq

## CODING TABLES (continued)

Column	Category	Number	Item
		81	Israel (Palestine)
		82	Japan, general
		83	Hokkaido (Yezo)
		84	Honshu (Hondo)
		85	Karafuto (Sakhalin)
		86	Kyushu
		87	Shikoku
		88	Jordan (Transjordanian)
		89	Kashmir
		90	Korea
		91	North Korea
		92	South Korea
		93	Kuwait
		94	Lebanon
		95	Malaya
		96	Nepal
		97	North Borneo
		98	Oman, general
		99	Muscat
		100	Qatar
		101	Pakistan, general
		102	East Pakistan (Bengal)
		103	West Pakistan, general
		104	Baluchistan
		105	Punjab
		106	Sind
		107	Philippines, general
		108	Babuyan Is.
		109	Bohol
		110	Calamian Is.
		111	Cebu
		112	Cuyo Is.
		113	Leyte
		114	Luzon
		115	Marinduque
		116	Masbate
		117	Mindanao
		118	Mindoro
		119	Negros
		120	Palawan
		121	Panay
		122	Polillo Is.
		123	Sarawak
		124	Saudi Arabia, general
		125	Hadhrmut
		126	Hejaz
		127	Nejd
		128	Siberia, general
		129	Badakhshan Aut. Terr.
		130	Buryat-Mongol ASSR
		131	East Siberian Area (RSFSR)
		132	Far East Area
		133	Karakalpak Aut. Area

CODING TABLES (continued)

Column	Category	Number	Item
		134	Kirghiz ASSR
		135	Oirot Aut. Terr.
		136	Tadzhik SSR
		137	Tannu Tuva
		138	Turkmen SSR
		139	Uzbek SSR
		140	West Siberian Area (RSFSR)
		141	Yakutsk ASSR
		142	Sikkim
		143	Singapore
		144	Syria
		145	Thailand (Siam)
		146	Turkey
		147	Yemen
			Australia
		01	Bougainville
		02	Commonwealth Territory
		03	New Britain
		04	New Ireland
		05	New South Wales
		06	North East New Guinea
		07	Northern Territory
		08	Papua
		09	Queensland
		10	South Australia
		11	Tasmania
		12	Western Australia
		13	Other
			Europe
		01	Albania
		02	Andorra
		03	Austria, general
		04	Carinthia (Kärnten)
		05	Stiermark
		06	Tirol
		07	Austria-Hungary, general
		08	Belgium (Spanish Netherlands)
		09	Bulgaria
		10	Cyprus
		11	Czechoslovakia, general
		12	Bohemia
		13	Slovenia (Moravia)
		14	Ruthenia
		15	Denmark, general
		16	Fyn
		17	Jutland
		18	Sjaelland
		19	Esthonia
		20	Finland, general
		21	Karelia
		22	France, general
		23	Alsace

## CODING TABLES (continued)

Column	Category	Number	Item
		24	Auvergne
		25	Brittany
		26	Burgundy
		27	Champagne
		28	Dauphiné
		29	Gascony
		30	Isle-de-France
		31	Languedoc
		32	Lorraine
		33	Normandy
		34	Provence
		35	Germany, general
		36	Bavaria
		37	Brandenburg
		38	East Germany
		39	Hanover
		40	Pomerania
		41	Prussia
		42	Rheinland
		43	Saxony
		44	Schleswig-Holstein
		45	Silesia
		46	Thuringia
		47	West Germany
		48	Westphalia
		49	Württemberg
		50	Greece, general
		51	Crete
		52	Cyclades
		53	Epirus
		54	Ionian Is.
		55	Macedonia
		56	Peloponnesos
		57	Thessaly
		58	Thrace
		59	Hungary
		60	Iceland
		61	Ireland
		62	Italy, general
		63	Apulia
		64	Corsica
		65	Emilia (Parma)
		66	Liguria (Genoa)
		67	Lombardia
		68	Naples (Kdm of 2 Sicilies), general
		69	Abruzzi e Molise
		70	Calabria
		71	Campania
		72	Lucania
		73	Puglia
		74	Sicily (inci. Malta)
		75	Papal States, general
		76	Lazio (Latium)

## CODING TABLES (continued)

Column	Category	Number	Item
		77	Marches
		78	Umbria
		79	Piemonte (Kdm of Sardinia)
		80	Sardinia
		81	Toscana (Tuscany, Etruria)
		82	Tridentina (Trentino, Trent)
		83	Venezia (Venice)
		84	Venezia Giulia (Istria)
		85	Latvia (Livonia)
		86	Liechtenstein
		87	Lithuania (Courland)
		88	Luxembourg
		89	Monaco
		90	Netherlands
		91	Norway
		92	Poland, general
		93	Galicia
		94	Great Poland (South Prussia)
		95	Little Poland
		96	Podlesia
		97	Portugal, general
		98	Badajoz (historic)
		99	Romania, general
		100	Banat
		101	Bessarabia
		102	Bucovina
		103	Dobruja
		104	Moldavia
		105	Transylvania
		106	Walachia
		107	San Marino
		108	Spain, general
		109	Andalucía
		110	Cordova
		111	Grenada
		112	Seville
		113	Aragon (Saragossa)
		114	Balearic Is.
		115	Asturias
		116	Castilla la Nueva (Toledo)
		117	Castilla la Vieja
		118	Cataluña
		119	Galicia
		120	León
		121	Murcia
		122	Navarra
		123	Valencia
		124	Vascongadas
		125	Sweden

CODING TABLES (continued)

Column	Category	Number	Item
		126	Switzerland, general
		127	Valais
		128	Russia (USSR, Soviet Union), general
		129	Armenian SSR
		130	Azerbaijan SSR
		131	Bashkir ASSR
		132	Belorussian SSR
		133	Chuvash ASSR
		134	Daghestan ASSR
		135	Georgian SSR
		136	Karelian ASSR
		137	Komi ASSR (Zyryan Aut. Terr.)
		138	Krym (Crimea) ASSR
		139	Mari Aut. Terr.
		140	Russian SSR
		141	Sverdlovsk Area
		142	Tatar ASSR
		143	Ukrainian SSR
		144	Volga ASSR
		145	Votsk Aut. Terr.
		146	United Kingdom, general
		147	England
		148	Northern Ireland
		149	Scotland
		150	Wales
		151	Vatican State
		152	Yugoslavia, general
		153	Bosnia
		154	Croatia
		155	Dalmatia
		156	Herzegovina
		157	Montenegro
		158	Serbia
		159	Slavonia
		160	Slovenia
			North America
		01	British Honduras
		02	Canada, general
		03	Alberta
		04	British Colombia
		05	Keewatin
		06	Labrador
		07	Mackenzie
		08	Manitoba
		09	New Brunswick
		10	Newfoundland
		11	Nova Scotia
		12	Ontario
		13	Prince Edward Island
		14	Quebec
		15	Saskatchewan
		16	Yukon



CODING TABLES (continued)

Column	Category	Number	Item
		17	Costa Rica
		18	Cuba
		19	Dominican Republic (Hispaniola)
		20	El Salvador
		21	Guatemala
		22	Haiti (St. Domingue)
		23	Honduras
		24	Jamaica
		25	Mexico (New Spain), general
		26	Aguascalientes
		27	Baja California
		28	Campeche
		29	Chiapas
		30	Chihuahua
		31	Coahuila
		32	Colima
		33	Durango
		34	Federal District
		35	Guanajuato
		36	Guerrero
		37	Hidalgo
		38	Jalisco
		39	México
		40	Michoacán
		41	Morelos
		42	Nayarit
		43	Nuevo León
		44	Oaxaca
		45	Puebla
		46	Querétaro
		47	Quintana Roo
		48	San Luis Potosi
		49	Sinaloa
		50	Sonora
		51	Tabasco
		52	Tamaulipas
		53	Tlaxcala
		54	Vera Cruz
		55	Yucatán
		56	Zacatecas
		57	Nicaragua
		58	Panama
		59	United States, general
		60	Alabama
		61	Alaska
		62	Arizona
		63	Arkansas
		64	California
		65	Colorado
		66	Connecticut
		67	Delaware

## CODING TABLES (continued)

Column	Category	Number	Item
		68	District of Columbia
		69	Florida
		70	Georgia
		71	Hawaii
		72	Idaho
		73	Illinois
		74	Indiana
		75	Iowa
		76	Kansas
		77	Kentucky
		78	Louisiana
		79	Maine
		80	Maryland
		81	Massachusetts
		82	Michigan
		83	Minnesota
		84	Mississippi
		85	Missouri
		86	Montana
		87	Nebraska
		88	Nevada
		89	New Hampshire
		90	New Jersey
		91	New Mexico
		92	New York
		93	North Carolina
		94	North Dakota
		95	Ohio
		96	Oklahoma
		97	Oregon
		98	Pennsylvania
		99	Rhode Island
		100	South Carolina
		101	South Dakota
		102	Tennessee
		103	Texas
		104	Utah
		105	Vermont
		106	Virginia
		107	Washington
		108	West Virginia
		109	Wisconsin
		110	Wyoming
			Pacific islands
		01	Aleutian Is.
		02	Austral (Tubai) Is.
		03	Batan Is.
		04	Caroline Is.
		05	Chatham Is.
		06	Cook Is.
		07	Ellice Is.
		08	Fiji Is.
		09	Galapagos Is.
		10	Gilbert Is.

## CODING TABLES (continued)

Column	Category	Number	Item
		11	Islas Tres Mariás
		12	Juan Fernandez Is.
		13	Kuril (Chishima) Is.
		14	Liuchiu (Ryukyu) Is.
		15	Mariana Is.
		16	Marquesas Is.
		17	Marshall Is.
		18	Natoena Is.
		19	New Caledonia
		20	New Hebrides
		21	New Zealand
		22	Ogasawara Is.
		23	Palau Is.
		24	Phoenix Is.
		25	Samoan Is.
		26	Solomon Is.
		27	Tokelau Is.
		28	Tonga (Friendly) Is.
		29	Tuamotu Archipelago
		30	Other Pacific islands
			South America
		01	Argentina, general
		02	Buenos Aires
		03	Catamarca
		04	Chubut
		05	Cordoba
		06	Corrientes
		07	El Chaco
		08	Entre Ríos
		09	Jujuy
		10	La Pampa
		11	La Rioja
		12	Los Andes
		13	Mendoza
		14	Neuquén
		15	Río Negro
		16	Salta
		17	San Juan
		18	San Luis
		19	Santa Cruz
		20	Santa Fe
		21	Tierra del Fuego
		22	Bolivia
		23	Brazil, general
		24	Acre
		25	Amazonas
		26	Bahía
		27	Ceará
		28	Espírito Santo
		29	Goiás
		30	Maranhão
		31	Matto Grosso
		32	Minas Gerais

CODING TABLES (continued)

Column	Category	Number	Item
		33	Pará
		34	Parahíba
		35	Paraná
		36	Pernambuco
		37	Piauí
		38	Rio Grande do Norte
		39	Rio Grande do Sul
		40	São Paulo
		41	Santa Catharina
		42	British Guiana
		43	Chile (New Estremadura)
		44	Colombia (New Grenada)
		45	Ecuador
		46	French Guiana
		47	Netherlands Antilles, general
		48	Aruba
		49	Bonaire
		50	Curaçao
		51	Paraguay
		52	Peru (New Castile)
		53	Surinam
		54	Trinidad and Tobago
		55	Uruguay
		56	Venezuela (New Andalusia, Spanish Main, Terra Firme)
			Other islands
		01	Indian Ocean islands, general
		02	Aldabra Is.
		03	Amirante Is.
		04	Andaman Is.
		05	Bahrein I.
		06	Chagos Arch.
		07	Christmas I.
		08	Cocos I.
		09	Comoro Is.
		10	Cosmoledo Is.
		11	Crozet I.
		12	Dahlak Is.
		13	Farasan Is.
		14	Kerguelen I.
		15	Kuria Muria Is.
		16	Laccadive Is.
		17	Maldiva Is.
		18	Marion I.
		19	Mascarene Is.
		20	Mentawai Is.
		21	Mergui Arch.
		22	Nicobar Is.
		23	Prince Edward I.
		24	Seychelle Is.

CODING TABLES (continued)

Column	Category	Number	Item
		25	Socotra I.
		26	Zanzibar and Pemba
		27	Others
		28	North Atlantic islands, general
		29	Azores Is.
		30	Bahama Is.
		31	Barbados Is.
		32	Bermuda Is.
		33	Canary Is.
		34	Cape Verde Is.
		35	Channel Is.
		36	Faeroe Is.
		37	Frisian Is.
		38	Leeward Is.
		39	Madeira Is.
		40	Orkney Is.
		41	Outer Hebrides Is.
		42	St. Pierre and Miquelon
		43	Shetland Is.
		44	Virgin Is.
		45	Windward Is.
		46	Others
		47	South Atlantic islands, general
		48	Ascension I.
		49	Bouvet I.
		50	Falkland Is.
		51	Fernando Po
		52	Principe
		53	São Thomé
		54	St. Helena
		55	South Georgia
		56	South Orkney Is.
		57	South Sandwich Group
		58	Tristan da Cunha
		59	Others
6	Major sea areas	1	American seas and gulfs
		2	Antarctic Ocean
		3	Arctic Ocean
		4	Asian seas and gulfs
		5	European seas and gulfs
		6	African and Australian seas and gulfs
		7	North Atlantic Ocean
		8	Pacific Ocean
		9	South Atlantic Ocean
7 and 8	Geographical unit by major sea area		American seas and gulfs
		01	Gulf of Alaska
		02	Baffin Bay
		03	Gulf of Batabanó
		04	Gulf of California

CODING TABLES (continued)

Column	Category	Number	Item
		05	Gulf of Campeche
		06	Caribbean Sea
		07	Gulf of Cazones
		08	Gulf of Chiriquí
		09	Gulf of Culebra
		10	Gulf of Darien
		11	Gulf of Dulce
		12	Gulf of Fonseca
		13	Foxe Basin
		14	Gulf of Gonaïves
		15	Gulf of Guacanayabo
		16	Gulf of Guayaquil
		17	Gulf of Honduras
		18	Hudson Bay
		19	James Bay
		20	Gulf of Maine
		21	Gulf of Maracaibo
		22	Gulf of Mexico
		23	Gulf of Montijo
		24	Mosquito Gulf
		25	Parita Gulf
		26	Gulf of Pénas
		27	Gulf of San Jorge
		28	Gulf of San Matias
		29	Gulf of St. Lawrence
		30	Gulf of Tehuantepec
		31	Ungava Bay
		32	Other
			Antarctic seas and gulfs
		01	Bellingshausen Sea
		02	Ross Sea
		03	Weddell Sea
		04	Other
			Arctic Ocean
		01	Arctic Ocean, general
		02	Amundsen Gulf
		03	Barents Sea
		04	Beaufort Sea
		05	Gulf of Boothia
		06	Coronation Gulf
		07	East Greenland Sea
		08	East Siberian Sea
		09	Greenland Sea
		10	Kara Sea
		11	Laptev (Nordenskiöld) Sea
		12	Lincoln Sea
		13	Gulf of Ob
		14	Prince Gustav Adolf Sea
		15	Queen Maud Sea
		16	Taz Gulf
		17	Viscount Melville Sound
		18	White Sea
			Asian seas and gulfs
		01	Gulf of Aden

CODING TABLES (continued)

Column	Category	Number	Item
		02	Gulf of Anadir
		03	Arabian Sea
		04	Ariake Sea
		05	Gulf of Aqaba
		06	Arafura Sea
		07	Banda Sea
		08	Bay of Bengal
		09	Bering Sea
		10	Gulf of Cambay
		11	Celebes Sea
		12	Gulf of Cutch
		13	Davao Gulf
		14	East China Sea (Tung-hai)
		15	Flores Sea
		16	Java Sea
		17	Kumano Sea
		18	Leyte Gulf
		19	Gulf of Liao-tung (Tungwan)
		20	Gulf of Mandar
		21	Gulf of Mannar
		22	Gulf of Martaban
		23	Gulf of Masirah
		24	Mindanao Sea
		25	Moro Gulf
		26	Sea of Okhotsk
		27	Gulf of Oman
		28	Persian Gulf
		29	Gulf of Pohai
		30	Red Sea
		31	Sagami Sea
		32	Samar Sea
		33	Savu Sea
		34	Gulf of Siam
		35	Sibuyan Sea
		36	South China Sea (Nam hai)
		37	Gulf of Suez
		38	Sulu Sea
		39	Gulf of Tartary
		40	Timor Sea
		41	Gulf of Tolo (Tomaiki)
		42	Gulf of Tomini (Gorontalo)
		43	Gulf of Tonkin
		44	Totomi Sea
		45	Visayan Sea
		46	Yellow Sea (Hwang-hai)
		47	Others
			European and Mediterranean seas and gulfs
		01	Adriatic Sea
		02	Aegean Sea
		03	Gulf of Ajaccio
		04	Gulf of Argolis
		05	Sea of Azov
		06	Baltic Sea

CODING TABLES (continued)

Column	Category	Number	Item
		07	Black Sea
		08	Gulf of Bothnia
		09	Gulf of Cadiz
		10	Gulf of Cagliari
		11	Gulf of Candarli
		12	Gulf of Catania
		13	Sea of Crete
		14	Gulf of Danzig
		15	Drin Gulf
		16	Gulf of Edremit
		17	Gulf of Erdek
		18	Gulf of Eufemia
		19	Gulf of Finland
		20	Gulf of Gabès
		21	Gulf of Gaeta
		22	Gulf of Genoa
		23	Gulf of Hammamet
		24	Gulf of Hebrides
		25	Ionian Sea
		26	Irish Sea
		27	Gulf of Istandkoy
		28	Gulf of Lakonia
		29	Ligurian Sea
		30	Gulf of Lions
		31	Gulf of Mandalya
		32	Gulf of Manfredonia
		33	Sea of Marmora
		34	Mediterranean Sea
		35	Gulf of Messina
		36	North Sea
		37	Gulf of Patras
		38	Gulf of Petalió
		39	Gulf of Oristano
		40	Gulf of Orosei
		41	Gulf of Quarnero
		42	Gulf of Riga
		43	Gulf of St. Florent
		44	Gulf of St. Malo
		45	Gulf of Salerno
		46	Gulf of Saros
		47	Gulf of Sidra
		48	Gulf of Squillace
		49	Gulf of Strimonikós
		50	Gulf of Taranto
		51	Gulf of Thessaloníke
		52	Gulf of Trieste
		53	Gulf of Tunis
		54	Tyrrhenian Sea
		55	Gulf of Valencia
		56	Gulf of Venice
			African and Australian seas and gulfs
		01	Azanian Sea
		02	Bight of Biafra



## CODING TABLES (continued)

Column	Category	Number	Item
		03	Gulf of Carpentaria
		04	Coral Sea
		05	Great Australian Bight
		06	Gulf of Guinea
		07	Gulf of Papua
		08	St. Vincent Gulf
		09	Spencer Gulf
		10	Tasman Sea
		11	Other
			Atlantic Ocean
		01	Sargasso Sea
		02	Other
			Pacific Ocean
		01	North Pacific Ocean
		02	Philippine Sea
		03	South Pacific Ocean
		04	Other
9	Latitude indicator	1	North
		2	South
10 and 11 12 and 13	Latitude	Actual degrees and minutes	
14	Longitude indicator	1	East from Greenwich
		2	West from Greenwich
15, 16, and 17 18, 19	Longitude	Actual degrees and minutes	
20, 21, and 22 23, 24, and 25 26, 27, and 28	Date of beginning of incident	Actual date	Day of month
		Number of month	Month (January = 1)
			Era
		1	A.D.
		2	B.C.
		Actual year	Year
29	Duration of incident, units	1	Hours
		2	Days
		3	Weeks
		4	Months
		5	Years
30 and 31	Duration of incident	Actual duration in above units	

CODING TABLES (continued)

Column	Category	Number	Item
32 and 33 34 and 35	Nationality or geographic origin of reporting force		Continent and country or part of country (See list for Cols 2, 3, 4, and 5)
	Descriptors		
36, 37, and 38	Organization and composition of reporting force		Complex organizations
		001	Army group
		002	Army
		003	Corps
		004	Division
		005	Infantry division, field
		006	Infantry division, airborne
		007	Armored division, field
		008	Armored division, airborne
		009	Task force, Army or joint
		010	Task group, Army or joint
		011	Task unit, Army or joint
		012	Combat command
		013	Combat team
		014	Command
		015	Mountain division
		016	Theater air force
		017	Numbered air force
		018	Air stations and/or bases
		019	Missile stations and/or bases
		020	Fleet
		021	Task force, Naval or joint
		022	Task group, Naval or joint
		023	Task unit, Naval or joint
		024	Antisubmarine screening force
		025	Bombardment force
		026	Amphibious force
		027	Transport force
		028	Convoy
		029	Naval stations and/or bases
		030	Test group (including all groups engaged in special testing projects)
		031	Maneuver group (including all groups engaged in maneuvers of any type, e.g., games, exercises, etc.)
		032	Doctrine (including official opinion and conclusions)
		033	Individual (including theories and opinions of unofficial writers, research reports, and conclusions of simulated operational experiments)

CODING TABLES (continued)

Column	Category	Number	Item
		034	Allied
		035	Joint air-ground
		036	Joint sea-ground
		037	Joint air-sea
			Infantry
		100	Infantry, general
		101	Light infantry
		102	Heavy infantry
		103	Armored infantry
		104	Mounted infantry, animal
		105	Mounted infantry, vehicle
		106	Airborne infantry
		107	Scout, reconnaissance (Pathfinder)
		108	Scout, dog
		109	Rangers (including raiders and commandos)
		110	Marines (including Naval shore party)
		111	Special forces (including guerrillas and clan- destine groups)
		112	Mountain infantry
		113	Test group
		114	Maneuver group
		115	Research group
			Artillery
		120	Artillery, general
		121	Light artillery, general
		122	Medium artillery, general
		123	Heavy artillery, general
		124	Gun unrifled
		125	Gun, rifled
		126	Mortar
		127	Howitzer
		128	Missile (rocket)
		129	Missile (mechanical)
		130	Target acquisition, general
		131	Illumination (including searchlight)
		132	Observation
		133	Pack artillery (animal or man)
		134	Siege artillery
		135	Airborne artillery
		136	Self-propelled artillery (motorized)
		137	Armor defense artillery
		138	Coast defense artillery
		139	Air defense artillery
		140	Artillery, animal drawn
		141	Test group
		142	Maneuver group
		143	Research group

CODING TABLES (continued)

Column	Category	Number	Item
			Armor
		150	Armor, general
		151	Armor, mounted
		152	Armor, vehicle, animal powered
		153	Armor, vehicle, motor- ized, general
		154	Armor, vehicle, motor- ized light
		155	Armor, vehicle, motor- ized medium
		156	Armor, vehicle, motor- ized heavy
		157	Armor, reconnaissance
		158	Armor, amphibious
		159	Armor, airborne
		160	Armor, special devices
		161	Armor, vehicle, man powered
		162	Test group
		163	Maneuver group
		164	Research group
			Cavalry
		170	Cavalry, general
		171	Light cavalry
		172	Heavy cavalry
		—	Armored cavalry (see Armor)
		—	Mechanized cavalry (see Armor)
		173	Airborne cavalry
			Air
		200	Air, general
			Strategic air
		210	Strategic air, general
		211	Reconnaissance craft, manned
		212	Reconnaissance craft, unmanned
		213	Escort craft, manned
		214	Bombers, manned
		215	Bombs, missile
		216	Satellites
		217	Test group
		218	Maneuver group
		219	Research group
			Tactical Air
		230	Tactical air, general
		231	Reconnaissance and ob- servation aircraft
		232	Reconnaissance craft, lighter than air
		233	Reconnaissance craft, heavier than air, manned

CODING TABLES (continued)

Column	Category	Number	Item
		234	Reconnaissance craft, unmanned
		235	Patrol aircraft, general
		236	Air-air defense aircraft
		237	Escort aircraft
		238	Air-surface support craft, general
		239	Air-ground close- support craft
		240	Air-ground forward- support craft
		241	Air-sea support craft
		242	Test group
		243	Maneuver group
		244	Research group
			Air transport
		250	Air transport, general
		251	Air rescue
		252	Troop carrier, general
		253	Troop carrier, jet
		254	Troop carrier, propeller, conventional
		255	Troop carrier, STOL
		256	Troop carrier, VTOL
		257	Troop carrier, seaborne
		258	Materiel carrier, jet
		259	Materiel carrier, pro- peller, conventional
		260	Materiel carrier, STOL
		261	Materiel carrier, VTOL
		262	Test group
		263	Maneuver group
		264	Research group
			Air defense
		270	Air defense, general
		271	Warning systems, general
		272	Antiaircraft defense, air
		273	Antiaircraft defense, surface
		274	Antimissile defense
		275	Test group
		276	Maneuver group
		277	Research group
			Sea
		300	Sea, general
			Combat craft
		310	Combat craft, general
		311	Battleships (BB, OBB)
		312	Heavy cruisers (battle cruisers, pocket battleships)
		313	Special cruisers (missile cruisers, antiaircraft cruisers)

## CODING TABLES (continued)

Column	Category	Number	Item
		314	Capital ships, sail (including galleons, war junks)
		315	Capital ships, oar (including galleys, galley-asses and triremes)
		316	Fire ship
		317	Mortar and rocket craft, sail (including ketches)
		318	Mortar and rocket craft, (including LCI[R])
		319	Other
		320	Test group
		321	Maneuver group
		322	Research group
			Reconnaissance and raiding craft
		330	Reconnaissance and raiding craft, general
		331	Carriers, heavy
		332	Carriers, light
		333	Light cruisers (scout cruisers)
		334	Destroyer
		335	Q-ship (disguised merchantman)
		336	Converted merchantman
		337	Frigate, steam or diesel
		338	Frigate, sail
		339	Corvette, steam or diesel
		340	Corvette, sail
		341	Monitor
		342	Brig, sail
		343	Sloop, sail
		344	Long ship, sail
		345	Submarine
		346	Small patrol craft (including PC, YP, PT)
		347	Other
		348	Test group
		349	Maneuver group
		350	Research group
			Amphibious craft
		360	Amphibious craft, general
		361	Heavy amphibious craft, general
		362	Landing ship, dock
		363	Landing ship, tank
		364	Landing ship, medium
		365	Other
		366	Light amphibious craft, general
		367	Landing craft, infantry
		368	Landing craft, tank

CODING TABLES (continued)

Column	Category	Number	Item
		369	Landing craft, vehicle, personnel
		370	Aircraft, amphibious
		371	Other
		372	Test group
		373	Maneuver group
		374	Research group
			Transport craft
		390	Transport craft, general
		391	Personnel transport, high speed (including Queen ships)
		392	Personnel transport, attack (including APA, APD)
		393	Personnel transport, regular (including converted merchantmen)
		394	Cargo craft, bulk and mixed (including AKA, FS)
		395	Cargo craft, special (including tankers and refrigerator ships)
		396	Other
		397	Test group
		398	Maneuver group
		399	Research group
			Fleet train
		410	Fleet train, general
		411	Fleet cargo craft
		412	Fleet tankers
		413	Repair ships
		414	Tenders
		415	Merchantmen, steam or diesel
		416	Merchantmen, sail
		417	Other
		418	Test group
		419	Maneuver group
		420	Research group
			Special-purpose craft
		430	Antisubmarine warfare craft (including SC)
		431	Minelayers, surface
		432	Minelayers, submarine
		433	Minesweepers (including YMS)
		434	Control ships (including AGC)
		435	Hydrographic ships
		436	Icebreakers
		437	Other
		438	Test group

CODING TABLES (continued)

Column	Category	Number	Item
		439	Maneuver group
		440	Research group
			Yard craft
		450	Yard craft, general
		451	Tugs
		452	Net tenders
		453	Floating docks
		454	Barges
		455	Patrol craft (including YP)
		456	Other
		457	Test group
		458	Maneuver group
		459	Research group
			Communications
		500	Communications, general
		501	Communications center
		502	Messenger
		503	Visual communications
		504	Wire communications
		505	Radio communications
		506	Other electronic (including radar)
		507	Special, including birds, dogs
		508	Mail
		509	Cryptographic group
		510	Censor
		511	Public information
		512	Psychological warfare group
		513	Audiocommunications
		514	Publications
		515	Data processing
		516	Other
		517	Test group
		518	Maneuver group
		519	Research group
			Intelligence
		600	Intelligence, general
		601	Order of battle
		602	Target acquisition
		603	Surveillance
		604	Field operations
		605	Patrol and reconnaissance
		606	Clandestine agents
		607	Prisoner-of-war interrogation
		608	Translation and interpretation
		609	Photo intelligence, including sensing
		610	Electronic intelligence, including communications intelligence



CODING TABLES (continued)

Column	Category	Number	Item
		611	Counterintelligence
		612	Counterreconnaissance
		613	Strategic intelligence
		614	Map compilation
		615	Technical intelligence
		616	Other
		617	Test group
		618	Maneuver group
		619	Research group
			Logistics
		700	Logistics, general
			Supply
		701	Supply, general
		702	Procurement
		703	Depots
		704	Materiel supervision
		705	Maintenance and repair
		706	Collection
		707	Salvage
		708	Disposal
		709	Test group
		710	Maneuver group
		711	Research group
			Distribution
		730	Transportation, general
		731	Terminals
		732	Human transport
		733	Animal transport
		734	Motor vehicle transport
		735	Pipeline transport
		736	Railway and tram transport
		737	Air transport
		738	Inland-waterways transport
		739	Ocean transport
		740	Cable (aerial tramway) transport
		741	Other
		742	Test group
		743	Maneuver group
		744	Research group
			Medical service
		750	Medical service, general
		751	Treatment
		752	Evacuation
		753	Collection
		754	Hospitalization
		755	Preventive medicine
		756	Veterinary
		757	Medical laboratory
		758	Medical, surgical, dental, and psychiatric specialties
		759	Other
		760	Test group

CODING TABLES (continued)

Column	Category	Number	Item
		761	Maneuver group
		762	Research group
			Service and management
		770	Logistic administration
		771	Civilian labor administration
		772	Damage control
		773	Base security
		774	Base construction and maintenance
		775	Base utilities and maintenance
		776	Other facilities
		777	Other services
		778	Test group
		779	Maneuver group
		780	Research group
			Construction
		800	Construction, general
		801	Base construction (in- cluding depots, termi- nals, and facilities)
		802	Defense systems (in- cluding fortifications and emplacements)
		803	Communications systems
		804	Power systems
		805	Surveillance systems
		806	Water supply
		807	Other resource develop- ment (including forestry, quarries, and gas generation)
		808	Port and harbor development
		809	Road
		810	Bridge
		811	Airfield
		812	Railroad and cable
		813	Pipeline
		814	Inland waterways
		815	Camouflage
		816	Pioneer
		817	Mine emplacement
		818	Beach development
		819	Other
		820	Test group
		821	Maneuver group
		822	Research group
			Civil affairs
		900	Civil affairs, general
		901	Civil administration, general
		902	Administrative

CODING TABLES (continued)

Column	Category	Number	Item
		903	Supply
		904	Food service
		905	Economics
		906	Commerce and industry
		907	Price control and rationing
		908	Property control
		909	Public finance
		910	Public safety
		911	Public health
		912	Public welfare
		913	Legal
		914	Public education
		915	Labor
		916	Public works and utilities
		917	Public communications
		918	Public transportation
		919	Displaced persons
		920	Civil information
		921	Arts, monuments, and archives
		922	Other
		923	Civil defense, general
		924	Communications
		925	Warning systems
		926	Rescue and evacuation
		927	Shelter
		928	Welfare
		929	Damage control
		930	Public safety (Police)
		931	Health and treatment
		932	Damage assessment
		933	Supply
		934	Public information
		935	Other
		936	Test group
		937	Maneuver group
		938	Research group
39 and 40	Unit size of reporting force		Ground units
		01	Army group
		02	Army
		03	Corps
		04	Division
		05	Regiment
		06	Brigade
		07	Battalion
		08	Company
		09	Battery
		10	Squadron
		11	Section
		12	Combat patrol
		13	Platoon
		14	Reconnaissance patrol

CODING TABLES (continued)

Column	Category	Number	Item
		15	Squad
		16	Troop
		17	Individual, male
		18	Test group
		19	Research organization
		20	Research team
		21	Research individual
		22	Other (including female units)
			Air units
		40	Command
		41	Wing
		42	Division
		43	Group
		44	Squadron
		45	Section
		46	Unit
		47	Crew
		48	Team
		49	Flight
		50	Single aircraft
		51	Test organization
		52	Research organization
		53	Research team
		54	Research individual
		55	Other
			Sea units
		70	Command
		71	Flotilla
		72	Squadron or group
		73	Division
		74	Section
		75	Single ship
		76	Department
		77	Crew (i.e., gun or boat)
		78	Party (i.e., detail)
		79	Task force
		80	Task group
		81	Task unit
		82	Test unit
		83	Research organization
		84	Research team
		85	Research individual
		86	Other
41, 42, and 43	Mission of reporting force		Combat missions
		001	Assault (including capture or destruction of enemy overground)
		002	Airborne assault
		003	Amphibious assault
		004	Seizing and retaining terrain
		005	Feints and demonstrations

CODING TABLES (continued)

Column	Category	Number	Item
		006	Blocking and screening
		007	Escort
		008	Area interdiction
		009	Harrassment (including sabotage, ambush, raid, air bombardment, and independent naval coast bombardment)
		010	Area occupation (including control of areas, resources, and civilian populations)
		011	Repelling assault (including coast defense, and antiairborne defense and repelling of boarders)
		012	Withdrawal (including retreat and disengagement)
		013	Command and control
		014	Other
			Combat-support missions
		020	Tactical ground support
		021	Artillery support and/or reinforcing fires
		022	Air support of ground combat (including air support)
		023	Air support of naval combat
		024	Naval support and/or reinforcing fires of ground combat
		025	Naval support of air combat
		026	Ground support of air combat
		027	Ground and land support of naval combat
		028	Target acquisition
		029	Antiaircraft and anti-missile defense
		030	Observation and surveillance (including illumination)
		031	Organization of irregulars (including guerrillas and clandestine groups)
		032	Sabotage and subversion
		033	Administrative support
		034	Communications support, tactical, general
		035	Communications facilities and systems
		036	Electronic warfare

CODING TABLES (continued)

Column	Category	Number	Item
		037	Intelligence support, general
		038	Collection
		039	Order of battle
		040	Technical intelligence
		041	Evaluation and interpretation
		042	Counterintelligence
		043	Security
		044	Other
			Logistic-support missions
		060	Medical service, general
		061	Collection of casualties
		062	Evacuation of casualties
		063	Treatment (including professional services)
		064	Hospitalization
		065	Preventive medicine and sanitation
		066	Recovery and disposal of deceased
		067	Other
		080	Supply, general
		081	Procurement, general
		082	Labor procurement, civilian
		083	Subsistence procurement (including fodder)
		084	General equipment procurement
		085	Transportation equip- ment procurement (including horses and vehicles)
		086	Depot and supply-point operation (including storage, stock control, preservation, and issue)
		087	Maintenance and repair
		088	Resource development (including water, forestry, subsistence production, mineral re- sources such as petroleum and construction ma- terials, and local pro- duction of manufacturers)
		089	Salvage (including re- covery, evacuation, reclamation, and dis- posal of friendly and captured supplies)
		090	Other

CODING TABLES (continued)

Column	Category	Number	Item
		100	Transportation, general, of personnel and cargo in tactical and logis- tical operations
		101	Manpower
		102	Pack animal
		103	Vehicle, animal drawn
		104	Vehicle, free ground, motorized
		105	Rail
		106	Aerial tramway
		107	Pipeline
		108	Ocean
		109	Lighterage
		110	Air, fixed wing
		111	Air, rotary wing
		112	Air, other
		113	Submarine
		114	Operation of ports and terminals
		115	Traffic control, sched- uling and routing
		116	Other
		130	Construction, general (including rehabilita- tion and maintenance)
		131	Routes
		132	Airfields
		133	Utilities
		134	Buildings
		135	Structures, other
		136	Port facilities
		137	Bridges
		138	Fortifications and emplacements
		139	Underground installations
		140	Petroleum distribution systems
		141	Communications systems
		142	Combat construction (in- cluding barriers, ob- stacles, and hasty fortifications)
		143	Damage control (includ- ing fire fighting)
		144	Demolitions
		145	Waterways and other canals
		146	Other
			Civil-affairs missions
		160	Civil affairs, general
		161	Establishment of civil organization
		162	Civil defense

CODING TABLES (continued)

Column	Category	Number	Item
		163	Emergency assistance
		164	Economic development
		165	Resource development
		166	Restoration of public services
		167	Processing and care of displaced persons
		168	Preservations of arts, monuments, and archives
		169	Other
			Miscellaneous support missions
		180	Administration (including command, control, supervision and support)
		181	Data processing
		182	Financial disbursement
		183	Investigation and adjudication
		184	Orientation and training
		185	Test and evaluation
		186	Research and engineering
		187	Enforcement of law, orders, and regulations
		188	Supervision of prisoners
		189	Publication
		190	Censorship
		191	Dissemination of information
		192	Entertainment and recreation
		193	Other
44	Employment of organizational unit in reporting force (see Cols 36, 37, and 38)	1	Not available
			Available
		2	Not employed
		3	Little employed
		4	Employed, satisfactory performance
		5	Employed, limited performance
		6	Employed, unsatisfactory performance
		7	Employed, performance unknown
45 and 46	Tactical disposition of reporting force	01	Column without screen or scouts
		02	Single column with screen
		03	Parallel columns, mutually supporting
		04	Convergent columns
		05	Parallel columns, not mutually supporting



CODING TABLES (continued)

Column	Category	Number	Item
		06	Line, continuous or mutually supporting
		07	Line, en echelon
		08	Parallel lines (waves)
		09	Salient (convex outward line)
		10	Reentrant (concave inward line)
		11	Concentrated body (square, circle, phalanx)
		12	Separated bodies, mutually supporting, deployed, dispersed (including squares, circles, diamonds)
		13	Separated bodies, not mutually supporting
		14	Concealed line or body
		15	Line of V's, mutually supporting
		16	Disorganized
		17	Other
47 and 48	Tactics employed by reporting force		Offensive tactics
		01	Advance, without attack
		02	Frontal attack
		03	Penetration (motti)
		04	Flank attack (single envelopment)
		05	Double envelopment (pincer, hammer and anvil)
		06	Infiltration
		07	Simple ambush
		08	Multiple ambush (e.g., Guevarra's minuet)
		09	Attack in passing
		10	Attack in parallel movement
		11	Attack in enfilade (e.g., crossing the "T")
		12	Other
			Defensive retrograde tactics
		30	Strop thrust (simultaneous attack)
		31	Counterattack (riposte)
		32	Take cover or concealment
		33	Consolidate
		34	Disengage and retreat
		35	Delaying or holding
		36	Disperse and reform
		37	Other
49, 50, 51, and 52	Nationality or origin of opposing force		(See list for Cols 36, 37, and 38)

CODING TABLES (continued)

Column	Category	Number	Item
53, 54, and 55	Organization and composition of opposing force		(See list for Cols 36, 37, and 38)
56 and 57	Unit size of opposing force		(See list for Cols 39 and 40)
58, 59, and 60	Mission of opposing force		(See list for Cols 41, 42, and 43)
61	Employment of organizational unit in opposing force		(See list for Col 44) (See list for Cols 36, 37, and 38)
62 and 63	Tactical disposition of opposing force		(See list for Cols 45 and 46)
64 and 65	Tactics employed by opposing force		(See list for Cols 47 and 48)
Operational Elements			
66 and 67	Major environmental element of influence (on either or both forces)	01	Weather
		02	Cold
		03	Heat
68 and 69	Contributing environmental element of influence (on either or both forces)	04	Rainfall
		05	Snowfall
		06	Iceing
		07	Fog
		08	Drought
70 and 71	Contributing environmental element of influence (on either or both forces)	09	Wind
		10	Blowing sand and/or dust
		11	Haze
		12	Atmospheric optics
		13	Light
72 and 73	Contributing environmental element of influence (on either or both forces)	14	Darkness
		15	Atmospheric electricity
			Other
			Landform
		20	Elevation
		21	Relief
		22	Slopes
		23	Texture
		24	Microrelief
		25	Valley width
		26	Hill height
		27	Banks and shores
		28	Other
			Soils and cover
		30	Weak ground
		31	Unstable ground
		32	Firm ground
		33	Snow
		34	Other
			Botany
		40	Forest
		41	Underbrush

## CODING TABLES (continued)

Column	Category	Number	Item
		42	Swamp and marsh
		43	Cultivated land
		44	Bacteria and fungus (see 51 and 52 in this list)
		45	Other
			Zoology
		50	Insects
		51	Disease
		52	Other microorganisms
		53	Animals
		54	Other
			Hydrology
		60	Bottom conditions
		61	Range of depth
		62	Water depth
		63	Water temperature, turbidity, and salinity
		64	Waves and swells (includ- ing surf)
		65	Currents
		66	Other
			Sociology
		70	Population density
		71	Settlement density
		72	Cultural uniformity
		73	Cultural development
		74	Social organization
		75	Other
			Economy
		80	Economic organization
		81	Employment
		82	Trade
		83	Productivity
		84	Resources
		85	Income
		86	Industrialization
		87	Transportation
		88	Other
			Politics and government
		90	Political organization
		91	Government organization
		92	Government efficiency
		93	Government stability
		94	Government representa- tiveness
		95	Minorities
		96	Other
74 and 75	Basic functions of military personnel	01	Breathing
		02	Sleeping
		03	Consumption
		04	Sense perception, general
		05	Observation, visual
		06	Hearing

CODING TABLES (continued)

Column	Category	Number	Item
		07	Touch
		08	Other
		09	Alertness (including re- action time)
		10	Reasoning, general
		11	Identification
		12	Recall
		13	Correlation
		14	Accounting
		15	Decision
		16	Speaking
		17	Manual dexterity
		18	Walking and running
		19	Climbing and jumping
		20	Swimming
		21	Lifting
		22	Carrying
		23	Striking
		24	Hiding
		25	Malfunction
		26	Other
76 and 77.	Materiel or systems to aid or extend the basic functions of military personnel (See Cols 74 and 75)	01	Special equipment to aid breathing (including masks and oxygen equipment)
		02	Special equipment and struc- tures to aid sleeping (in- cluding beds, sleeping bags, tents, and shelters)
		03	Devices and systems to aid in handling consumable products (including packaging and storage)
		04	Sensing devices, general
		05	Optical and electronic sys- tems and devices to aid or extend visual obser- vation (including photog- raphy, television, illu- mination, and electronic sensing devices)
		06	Acoustic devices to aid or extend hearing
		07	Clothing and devices to pro- tect against heat, cold, moisture, light, rough- ness, irritants, etc.
		08	Other
		09	Automatic responding devices
		10	Computing devices, general
		11	Comparers and identification keys
		12	Storage and retrieval systems

CODING TABLES (continued)

Column	Category	Number	Item
		13	Computer systems
		14	Computer systems and devices for the evaluation of choice
		15	
		16	Communication systems and devices
		17	Multiplier devices and systems (including levers, gears, transformers, and pantographs)
		18	Personnel-transport systems and devices (including animals, personnel vehicles, and aircraft)
		19	Devices to aid climbing and jumping (including ropes, pitons, and parachutes)
		20	Water-transport systems and devices (including swimming gear and watercraft)
		21	Lifting devices (including hoists and cranes)
		22	Cargo-transportation systems and devices (including animals, vehicles, watercraft, aircraft, etc.)
		23	Weapons and weapons systems
		24	Camouflage, concealment, and deception systems and devices
		25	Medical and surgical systems, materials, and devices
		26	Other
78 and 79	Operational functions of military organizations that correspond to the basic functions of military personnel. (See list for Cols 74 and 75) and the materiel or systems that aid or extend the basic functions of military personnel. (See list for Cols 76 and 77)	01	Supply
		02	Supply
		03	Supply
		04	Intelligence
		05	Intelligence
		06	Intelligence
		07	Supply
		08	
		09	Command
		10	Command
		11	Intelligence
		12	Intelligence
		13	Intelligence
		14	Command
		15	Command
		16	Communications

CODING TABLES (continued)

Column	Category	Number	Item
		17	Human engineering
		18	Movement
		19	Movement
		20	Movement
		21	Transportation
		22	Transportation
		23	Combat
		24	Combat
		25	Medical
		26	Other
Card 2			
1 and 2	Reporting force's tactical use of environmental conditions		Command function
		01	Support of populace
		02	Local political support
		03	Existing recreational facilities
3 and 4	Opposing force's tactical use of environmental conditions		Communications function
		11	Existing communication facilities and systems
		12	Magnetic storms
			Combat function
		21	Channelizing movement of opposing force
		22	Favorable observation points
		23	Natural fields of fire
		24	Concealment, general
		25	Vegetation
		26	Landform
		27	Fog
		28	Rain and/or snow
		29	Clouds
		30	Darkness
		31	Islands and headlands
		32	Other
		33	Existing shelter and cover
		34	Landform irregularity (including caves)
		35	Vegetation
		36	Structures (including tunnels and mines)
		37	Protection by obstacles, general
		38	Rough ground
		39	Weak ground
		40	Forest and/or underbrush
		41	Snow and ice
		42	Rugged landforms (including steep slopes)
		43	Rivers
		44	Lakes, swamps, and marshes
		45	Shoals and reefs

CODING TABLES (continued)

Column	Category	Number	Item
		46	High waves
		47	Storms
		48	Other means
		49	Use of favorable (i.e., un- restricted) environments
		50	Unrestricted terrain
		51	Unrestricted waters
		52	Favorable weather
		53	Improvement in weather
		54	Other favorable conditions
			Movement function
		60	Environmental aids to navigation
		61	Prominent existing landmarks
		62	Good (unrestricted) visibility
		63	Distinct routes (includ- ing well-marked routes)
		64	Other
		65	Favorable environmental conditions, which aid or enhance movement, general
		66	Winds (including tailwinds)
		67	Currents, tides, and seas
		68	Route development and gradient
		69	Route net (i.e., route development in desired direction, multiple routes favoring traffic circulation)
		70	Existing facilities (in- cluding airfields, ports, and pipelines)
		71	Freezing weather
		72	Firm ground (including frozen ground and bodies of water)
		73	Other aids to movement
			Supply function
		80	Use of indigenous labor
		81	Exploitation of indigenous production capacity
		82	Exploitation of indigenous resources
		83	Use of existing structures
		84	Ports and docks
		85	Warehouses
		86	Terminals
		87	Hospitals
		88	Shelters
		89	Others

CODING TABLES (continued)

Column	Category	Number	Item
		90	Use of local transportation equipment
		91	Draft animals
		92	Vehicles
		93	Watercraft
		94	Railroad rolling stock
		95	Other supply considerations
5 and 6	Tactical results of incident to reporting force	01	Gained objective
		02	Exceeded objective
		03	Delayed
7 and 8	Tactical results of incident to opposing force	04	Held
		05	Repelled
		06	Surprised
		07	Penetrated
		08	Enveloped
		09	Isolated (separated)
		10	Disoriented (lost)
		11	Dispersed (routed)
		12	Disorganized
		13	Destroyed
		14	Achieved limited gains
		15	Other
9	Level of accomplishment of mission by reporting force (see list for Cols 41, 42, and 43)	1	Accomplishment enhanced (i.e., done more quickly or with less cost or effort than anticipated)
		2	Accomplished
10	Level of accomplishment of mission by opposing force (see lists for Cols 41, 42, and 43)	3	By addition of materiel or personnel (input increased beyond anticipation)
		4	At high or excessive cost (heavy losses)
		5	Delayed
		6	Delayed excessively (not in time to effect planned or timely coordination with other elements of the force)
		7	In part
		8	Mission exceeded
		9	Mission failed (mission not accomplished in any important part)
11	Effect of environmental elements in the incident on the level of accomplishment of mission by reporting force		Contributed to
		1	Improved efficiency of accomplishment
		2	Accomplishment
		3	Increased cost of accomplishment
		4	Need for augmentation (i.e., increased employment of materiel or manpower)
12	Effect of environmental elements in the incident on the		



CODING TABLES (continued)

Column	Category	Number	Item
	level of accomplishment of mission by opposing force	5 6 7 8	Delay Limitation of success Failure of mission No effect
	Personnel and Materiel		
13 and 14	Materiel		Materials
		01	Ceramics and nonmetallic materials
		02	Chemicals
		03	Fibers
		04	Leather and animal materials
		05	Metals and metallic minerals
		06	Hydrocarbons (including coal, petroleum and petroleum or coal products)
		07	Plastics, adhesives, and synthetics
		08	Rubber
		09	Seeds and livestock
		10	Wood and vegetable materials
		11	Other
			Supplies
		20	Ammunition (including mines, rockets, charges, cartridges, pyrotechnics, arrows, and other projectiles)
		21	Construction materials, prepared (including cement, brick, asphalt, wire, pipe, and structural, precut, or pre-shaped components)
		22	Containers and packaging (including pallets and dunnage)
		23	Fuels and lubricants (including wood, coal, oil, gasoline, rocket fuel, and nuclear fuel)
		24	Laboratory supplies
		25	Maintenance and repair Supplies (including spare parts)
		26	Medicines and medical, surgical, dental, and veterinary supplies
		27	Office supplies

CODING TABLES (continued)

Column	Category	Number	Item
		28	Printed materials
		29	Subsistence (including food, forage, beverages, and luxury items)
		30	Other
			Equipment and equipment components
		40	Communications equipment
		41	Computing equipment (including business machines and fire-control equipment)
		42	Construction equipment (including dredges, bulldozers, earth-moving equipment and tools)
		43	Maintenance and repair equipment (including impregnation equipment, shop equipment, and shop tools)
		44	Materials-handling and -packaging equipment (including forklift trucks, cranes, and roller conveyors)
		45	Medical, surgical, dental, veterinary and psychiatric equipment
		46	Navigational equipment
		47	Office equipment except communications equipment, computers, and furniture (including safes, files, typewriters, etc.)
		48	Personal equipment (including clothing, blankets, sleeping bags, mess kits, trenching tools, life belts, and personal parachutes)
		49	Personal service equipment (including furniture, fixtures, cooking equipment, food-service equipment, baths, laundries, and barber equipment)
		50	Power equipment (including engines, generators, transformers, batteries, and transmission lines)
		51	Printing and publishing equipment (including reproduction equipment, map and chart-production

CODING TABLES (continued)

Column	Category	Number	Item
			equipment and photo-graphic-reproduction equipment)
		52	Production and fabrication equipment (including agricultural, mining, oil-field, metal-working, chemical- or food processing, and general-industrial equipment)
		53	Recreational and religious equipment
		54	Sensing and surveillance equipment (including radar, sonar, illumination, photographic, television, and infrared equipment)
		55	Transport equipment, non-vehicular (including packboards, animals, pipelines, and parachutes)
		56	Vehicles, combat, general (platform only)
		57	Aircraft, combat
		58	Ground vehicles, combat, mechanized (including tanks, railroad guns, self-propelled weapons, and armored personnel carriers)
		59	Ground vehicles, combat, mechanized, amphibious (including amphibious tanks and personnel carriers)
		60	Ground vehicles, combat, animal (including war horses, war elephants, horse artillery, war chariots, and other animal-borne weapons platforms)
		61	Ships, combat, mechanized (including battleships, cruisers, aircraft carriers, escort craft, patrol craft and submarines)
		62	Ships, combat, nonmechanized (including combat sailing ships and galleys)
		63	Vehicles, transport and support, general (platform only)

CODING TABLES (continued)

Column	Category	Number	Item
		64	Aircraft, fixed wing, cargo
		65	Aircraft, rotary wing, cargo
		66	Aircraft, lighter than air, support
		67	Ground vehicles, motorized, transport (including automobiles, trucks, carriers, railroad rolling stock, and aerial tramway)
		68	Ground vehicles, motorized, transport amphibious
		69	Ground vehicles, animal, transport (including carts, wagons, and sleds)
		70	Watercraft, mechanized, cargo (including diesel, steam- or nuclear-powered ships, and lighters)
		71	Watercraft, mechanized, cargo, amphibious, or amphibious support (including LSD, LST, LSM, LCM, LCVP)
		72	Watercraft, mechanized, cargo, submarine
		73	Watercraft, nonmechanized (sail or oar powered), cargo
		74	Watercraft, nonpowered, cargo (including barges and rafts)
		75	Weapons, general
		76	Personal, hand (including club, knife, spear, hook, lance, mace, axe, sword, and bayonet)
		77	Personal, projectile (including sling, bow, pistol, javelin, harquebus, musket, rifle, submachinegun, and hand grenade)
		78	Heavy, mechanical (including ballista, catapult, and ram)
		79	Heavy, explosive (including machineguns, mortars, howitzers, cannon, heavy rifles, rockets, and bombs)

CODING TABLES (continued)

Column	Category	Number	Item
		80	Emplaced (including mines, boobytraps, spikes, prepared avalanches, snares, and traps)
		81	Chemical (including Greek fire, flame-throwers, incendiaries, gas, hot oil, molten metal, dispersed liquids, and crop and weed killers)
		82	Bacteriological and radiological
		83	Other
		84	Other
15-64	Name of item		
65 and 66	Material performance characteristics		Satisfactory
		01	Higher capabilities likely
		02	No limits to normal use observed
		03	In this instance, critical limits of conditions of employment recognized
			Limited satisfactory
		04	Required field modification
		05	Required increased effort of personnel or support of other equipment
		06	Functioned at reduced efficiency (hindered, operational sites and emplacements limited, functional at only limited times)
		07	Failed to perform unusual or emergency function
		08	Unusually large maintenance, repair, or replacement requirement
		09	Unusually large supply requirement
		10	Adjudged of limited use or performance; little used or few employed
			Unsatisfactory
		11	Obstructed or prevented
		12	Failed to perform normal function
		13	Adjudged of limited use or performance; none used

CODING TABLES (continued)

Column	Category	Number	Item
67 and 68	Action status of personnel and materiel	14	Alternative item or system employed
		15	Other
			Static condition
		01	Storage of static materiel (i.e., materiel without moving parts, or movable parts, in static storage)
		02	Storage of materiel with potential mechanical electronic or chemical action
		03	Active reserve, personnel (including organized units held in reserve status)
		04	Active reserve, materiel (including operational and functioning materiel held in reserve status)
			Static materiel
		05	No moving parts, functions in place, installed (including pipelines, bridges, quonset huts, etc.)
		06	With moving parts, functions in place, installed (including large computers, fixed power generators, permanent refrigeration units, dry docks, fixed cranes, etc.)
		07	Combat, temporarily emplaced (including artillery, fire-control systems, and battlefield-surveillance systems)
		08	Noncombat, temporarily emplaced (including temporary utility systems, tents, mobile shelters, bakeries, laundries, etc.)
		09	Nonmilitary, temporarily emplaced (including temporary power, shelter, recreation facilities, hospitals, churches, and public address systems in support of civil affairs)

CODING TABLES (continued)

Column	Category	Number	Item
			Static personnel
		10	Combat (including observers, lookouts, personnel in bivouac, foxholes, trenches, fortifications, and dugouts)
		11	Noncombat (including those engaged in traffic control, communications and administration)
		12	Nonmilitary (including civilian labor employed in administration, communication, civil affairs, etc.)
			Static materiel
		13	Combat, mobile (including vehicles, armor, mechanical equipment and other weapons not actually in motion)
		14	Noncombat, mobile (including construction equipment, cargo vehicles, etc., not actually in motion)
		15	Nonmilitary, mobile (including mobile equipment used in civil affairs when not actually in motion)
		16	Projecting (i.e., materiel which projects or transmits energy or projectiles, including radar, radio, searchlights, weapons, catapults, etc.)
		17	Other static materiel or personnel
			Mobile condition
			Personnel, mobile
		30	Separate, noncombat (including personnel on foot, climbing, or swimming)
		31	Separate, combat
		32	Conveyed, noncombat (including personnel riding on animals or in vehicles, noncombat situation)
		33	Conveyed, combat

CODING TABLES (continued)

Column	Category	Number	Item
		34	Separate, nonmilitary (including civilians and military personnel on leave)
		35	Conveyed, nonmilitary (including civilians and military personnel on leave)
		36	Materiel, mobile With moving parts, com- bat (including moving tanks, ships, aircraft, other vehicles, etc.)
		37	With moving parts, non- combat (including sup- port vehicles, and lo- gistic machinery)
		38	With moving parts, non- military (including civilian vehicles, agri- cultural and factory machinery and public utilities)
		39	Without moving parts, in combat situation (in- cluding clothing, skis, sleds, armor, etc.)
		40	Without moving parts, in noncombat, support situation
		41	Without moving parts, in nonmilitary situation
		42	As cargo in transit
		43	Projecting, in process of simultaneously moving and projecting
		44	Other moving materiel or personnel
	Performance char- acteristics of per- sonnel and organ- izational components; the composition of forces		
Card 3			
1 and 2	Command, adminis- tration and man- agement	01 02	Satisfactory Higher capabilities likely No limits to normal use observed
3 and 4	Communications	03	In this instance, critical limits of conditions of employment recognized
5 and 6	Intelligence		



CODING TABLES (continued)

Column	Category	Number	Item
7 and 8	Infantry		Limited satisfactory
9 and 10	Cavalry	04	Required elimination of some equipment or organizational components
11 and 12	Artillery	05	Required addition of some equipment, personnel, or organizational components
13 and 14	Armor	06	Required special training or organizational or health measures
15 and 16	Strategic air	07	Functioned at reduced efficiency, speed, or reliability
17 and 18	Tactical air	08	Required special supplies or consumed supplies at an unusually high rate
19 and 20	Air transport	09	Slight to moderate morale deterioration
21 and 22	Air defense	10	Slight to moderate or temporary health deterioration (including excessive fatigue, chill, thirst, and overheating)
23 and 24	Naval combat	11	Numbers or size of organization too small to perform normal function as required
25 and 26	Naval escort and patrol	12	Adjudged of limited use or performance capabilities; little used
27 and 28	Naval amphibious	13	Unsatisfactory
29 and 30	Naval transport	14	Function obstructed or prevented
31 and 32	Supply and distribution	15	Failed to perform normal function
33 and 34	Medical service	16	Adjudged of little or no use; none used
35 and 36	Construction	17	Severe morale deterioration (including panic)
37 and 38	Civil affairs	18	Severe health deterioration
39 and 40	Navigation	19	Alternative organization or capability used
		20	No personnel or organizational components of this type available
			Other
41	Units of speed of movement data	1	Feet per hour
		2	Miles per week
		3	Miles per day
		4	Miles per hour
		5	Miles per minute

CODING TABLES (continued)

Column	Category	Number	Item
42, 43, and 44	Speed of movement		Actual speeds (average) in above units (see list for Col 41)
Atmospheric Environment			
45	Visibility units		Horizontal
		1	One direction
		2	Minimum
		3	General or mean
		4	Maximum
		5	Air-to-ground or ground- to-air (ceiling)
		6	Other air-to-ground or ground-to-air
		7	Air-to-ground obscured by terrain
		8	Air-to-ground obscured by clouds
		9	Ground-to-air obscured by clouds or haze
		0	Ground-to-air obscured by terrain
46, 47, 48, 49, and 50	Visibility in yards		Actual observations or estimates (see list for Col 45)
51 and 52	Temperature, crit- ical to the function of materiel or personnel		Degrees Fahrenheit
		01	-86 - -90
		02	-81 - -85
		03	-76 - -80
		04	-71 - -75
53 and 54	Minimum temperature (ambient) observed during incident	05	-66 - -70
		06	-61 - -65
		07	-56 - -60
		08	-51 - -55
55 and 56	Maximum temperature observed during incident	09	-46 - -50
		10	-41 - -45
		11	-36 - -40
		12	-31 - -35
		13	-26 - -30
		14	-21 - -25
		15	-16 - -20
		16	-11 - -15
		17	- 6 - -10
		18	- 1 - - 5
		19	0-4
		20	5-9
		21	10-14
		22	15-19
		23	20-24
		24	25-29
		25	30-34
		26	35-39

CODING TABLES (continued)

Column	Category	Number	Item
		27	40-44
		28	45-49
		29	50-54
		30	55-59
		31	60-64
		32	65-69
		33	70-74
		34	75-79
		35	80-84
		36	85-89
		37	90-94
		38	95-99
		39	100-104
		40	105-109
		41	110-114
		42	115-119
		43	120-124
		44	125-129
		45	130-134
		46	135-139
		47	140-144
		48	145-149
57	Relative humidity	1	0-19
		2	20-29
		3	30-39
		4	40-49
		5	50-59
		6	60-69
		7	70-79
		8	80-89
		9	90-94
		0	95-100
58 and 59	Weather	00	Cloudless (from no clouds up to but not including 1/10 of sky covered)
		01	Partly cloudy (from 1/10 to 5/10 of sky covered)
		02	Cloudy (5/10 to 9/10 of sky covered)
		03	Overcast (> 9/10 of sky covered)
		04	Low fog (on ground or at sea)
		05	Haze (visibility > 5/8 mile)
		06	Dust devils seen
		07	Distant lightning
		08	Light fog (visibility 5/8-6 miles)
		09	Fog at a distance but not at place of observation
		10	Precipitation within sight but not at place of observation
		11	Thunder without precipitation

CODING TABLES (continued)

Column	Category	Number	Item
		12	Dust storm within sight
		13	Ugly, threatening sky
		14	Squally weather
		15	Heavy squalls within last 3 hr
		16	Waterspouts observed within last 3 hr
		17	Visibility reduced by indus- trial smoke, smoke from grass or forest fires, or volcanic ashes
		18	Dust storm (visibility > $\frac{5}{8}$ mile)
		19	Signs of tropical storm (hurricane)
		20	Precipitation, previous (rain, drizzle, hail, snow, or sleet)
		21	Drizzle, previous
		22	Rain, previous
		23	Snow, previous
		24	Rain and snow mixed, previous
		25	Rain showers, previous
		26	Snow showers, previous
		27	Hail or rain and hail showers, previous
		28	Slight thunderstorm, previous
		29	Heavy (severe) thunder- storm, previous
		30	Dust or sandstorm (visi- bility < $\frac{5}{8}$ mile), general
		34	Line of dust storms (visi- bility < $\frac{5}{8}$ mile)
		35	Storm of drifting snow (visi- bility < $\frac{5}{8}$ mile)
		40	Fog (visibility < $\frac{5}{8}$ mile), general
		41	Moderate fog
		42	Thick fog
		43	Fog, sky discernible
		44	Fog, sky not discernible
		49	Fog, in patches
		50	Drizzle, general
		51	Intermittent slight drizzle
		52	Continuous slight drizzle
		53	Intermittent moderate drizzle
		54	Continuous moderate drizzle
		55	Intermittent thick drizzle
		56	Continuous thick drizzle
		57	Drizzle and fog
		58	Slight or moderate drizzle and rain

CODING TABLES (continued)

Column	Category	Number	Item
		59	Thick drizzle and rain
		60	Rain, general
		61	Intermittent light rain
		62	Continuous light rain
		63	Intermittent moderate rain
		64	Continuous moderate rain
		65	Intermittent heavy rain
		66	Continuous heavy rain
		67	Rain and fog
		68	Light or moderate rain and snow, mixed
		69	Heavy rain and snow, mixed
		70	Snow, general
		71	Intermittent light snow
		72	Continuous light snow
		73	Intermittent moderate snow
		74	Continuous moderate snow
		75	Intermittent heavy snow
		76	Continuous heavy snow
		77	Snow and fog
		78	Frozen drizzle
		79	Frozen raindrops (sleet)
		80	Showers, general
		81	Slight or moderate rain showers
		82	Heavy rain showers
		83	Slight or moderate snow showers
		84	Heavy snow showers
		85	Slight or moderate showers of rain and snow
		86	Heavy showers of rain and snow
		87	Showers of snow pellets (soft hail)
		88	Slight or moderate showers of hail or rain and hail
		89	Heavy showers of hail or rain and hail
		90	Thunderstorm, general
		93	Slight thunderstorm without hail, but with rain or snow
		94	Slight thunderstorm with hail
		95	Moderate thunderstorm with- out hail, but with rain or snow
		96	Moderate thunderstorm with hail
		97	Heavy thunderstorm without hail, but with rain or snow
		98	Thunderstorm combined with dust storm
		99	Thunderstorm, heavy, with hail

CODING TABLES (continued)

Column	Category	Number	Item
60 and 61	Wind force (Beaufort Scale)		Velocity, mph
		00	Calm, velocity < 1
		01	Light air, 1-3
		02	Slight breeze, 4-7
		03	Gentle breeze, 8-12
		04	Moderate breeze, 13-18
		05	Fresh breeze, 19-24
		06	Strong breeze, 25-31
		07	High wind, 32-38
		08	Gale, 39-46
		09	Strong gale, 47-54
		10	Whole gale, 55-63
		11	Storm, 64-75
		12	Hurricane, > 75
62	Depth of snow on ground		Depth, in.
		0	Trace-0.9
		1	1.0-2.9
		2	3.0-4.9
		3	5.0-6.9
		4	7.0-8.9
		5	9.0-14.9
		6	15.0-20.9
		7	21.0-26.9
		8	27.0-32.9
		9	≥ 33
63	Cloud Cover		Fraction of sky covered
		0	None
		1	< 1/10
		2	1/10
		3	2/10-3/10
		4	4/10-6/10
		5	7/10-8/10
		6	9/10
		7	> 9/10 but with openings
		8	Completely covered
		9	Sky obscured by fog, dust storm, or other phenomena
64	Ceiling (lowest height above ground at which total cloudiness present covers > 5/10 of sky)		Feet
		0	0-149
		1	150-299
		2	300-599
		3	600-999
		4	1000-1999
		5	2000-2999
		6	3000-4999
		7	5000-6999
		8	7000-9999
		9	≥ 10,000 (or unlimited)
65	Visibility		Fog or haze
		0	Dense, objects not visible at 50 yd

CODING TABLES (continued)

Column	Category	Number	Item
		1	Thick, objects not visible at 200 yd
		2	Objects not visible at 500 yd
		3	Moderate, objects not visible at 1/2 nautical mile
		4	Thin, objects not visible at 1 nautical mile
			Visibility
		5	Poor, objects not visible at 2 nautical miles
		6	Moderate, objects not visible at 5 nautical miles
		7	Good, objects not visible at 10 nautical miles
		8	Very good, objects not visible at 30 nautical miles
		9	Excellent, objects visible at >30 nautical miles
66	State of sea		Wave height, ft
		0	Calm, no waves
		1	Smooth, less than 1
		2	Slight, 1-3
		3	Moderate, 3-5
		4	Rough, 5-8
		5	Very rough, 8-12
		6	High, 12-20
		7	Very high, 20-40
		8	Precipitous, over 40
		9	Confused
	Geologic Environment		
67 and 68	Elevation or altitude above sea level		Actual heights in thousands of feet (prefix heights with minus sign to refer to levels below sea level)
69	Landform relief (individual sites and homogeneous landscapes)		Vertical variance, ft/sq mi
		1	Flatlands, 0-19
		2	Low plains, 20-39
		3	Plains, 40-79
		4	Rolling plains, 80-159
		5	Hills, 160-319
		6	Low mountains, 320-639
		7	Mountains, 640-1297
		8	High mountains, 1280-2559
		9	Very high mountains, > 2560
70	Composite landforms		Vertical variance, ft/sq mi
		1	Plains, 0-159
		2	Plains-hills, 0-319
		3	Hills, 160-319

CODING TABLES (continued)

Column	Category	Number	Item
		4	Rolling plains-hills-low mountains, 80-639
		5	Plains-mountains; hills mostly absent, 0-159 in two separate categories and > 319
		6	Hills-mountains, > 160
		7	Mountains, > 320
		8	Plains-hills-mountains, < 80 to > 640
71	Topographic texture (This is a measure of the topographic irregularity of the landscape, of the density of hills, ridges, and valleys. It is here expressed as the average number of drainageways per mile of random transect.)		Drainageways per mile; mean interval, yd
		1	Very smooth, < 0.25; > 7000
		2	Smooth, 0.26-0.44; 4000-7000
		3	Very coarse, 0.45-0.73; 2400-4000
		4	Coarse, 0.74-2.20; 800-2400
		5	Medium, 2.21-3.50; 500-800
		6	Fine, 3.51-5.86; 300-500
		7	Very fine, 5.87-8.77; 200-300
		8	Badlands, > 8.78; < 200
72	Microrelief-roughness (phenomena < 3 ft wide)		Height, in.
		1	0-4
		2	4-8
		3	8-12
		4	12-16
		5	16-20
		6	20-24
		7	24-28
		8	28-32
		9	> 32
73	Microrelief-obstacles (phenomena > 3 ft wide)		Height, in.
		0	0-6
		1	6-12
		2	12-18
		3	18-24
		4	24-30
		5	30-36
		6	36-42
		7	42-48
		8	48-54
		9	> 54
74 and 75	Slope (critical conditions of gradient that influence the performance of personnel or materiel)		(Slope, 0-90 deg, expressed in degrees; 91 reserved to indicate overhang of any amount)



CODING TABLES (continued)

Column	Category	Number	Item
76 and 77	Soil	01	(GW) Well-graded gravel and gravel-sand mixtures, little or no fines (including valley-train gravel)
		02	(GC) Well-graded gravel-sand-clay mixtures (including periglacial alluvium)
		03	(GP) Poorly graded gravel and gravel-sand mixtures, little or no fines (including climatic terrace deposits and glaciofluvatile deposits)
		04	(GF) Gravel with fines, very silty gravel, clayey gravel, poorly graded gravel-sand-clay mixtures (including till, landslide deposit, congliturbate and other colluvium)
		05	(SW) Well-graded sands and gravelly sands, little or no fines (including dune and beach deposits)
		06	(SC) Well-graded sand-clay mixtures (including eolian deposits)
		07	(SP) Poorly graded sands, little or no fines (including stream deposits)
		08	(SF) Sand with fines, very silty sands, clayey sands, poorly graded sand-clay mixtures (including flood-plain deposits)
		09	(ML) Silts (inorganic) and very fine sands, rock flour, silty or clayey fine sands with slight plasticity (including loess and slack-water deposits)
		10	(CL) Clays (inorganic) of low to medium plasticity, sandy clays, silty clays, lean clays (including slack-water deposits)
		11	(OL) Organic silts and organic silt-clays of low plasticity (including water deposits)
		12	(MH) Micaceous or diatomaceous fine sandy and silty soils, elastic silts
		13	(CH) Clays (inorganic) of high plasticity, fat clays (including residual clays)

CODING TABLES (continued)

Column	Category	Number	Item
		14	(OH) Organic clays of medium to high plasticity
		15	(Pt) Peat and other highly organic swamp soils
		16	Snow, not recrystallized
		17	Névé, recrystallized, compacted, regelated snow
		18	Ice, solidified on the surface from a molten state
Card 4			
1	State of ground	1	Dry, loose
		2	Dry, compact
		3	Moist
		4	Saturated
		5	Frozen
Hydrographic Environment			
	(For state of the sea see Col 66)		
2 and 3	Water depth		Actual depth of water in ft up to 99 ft (depth in hundreds of feet given by A + a number, in thousands of feet by B + a number, and in 10,000-ft units by C + a number)
4	Surf or wave height		Actual height of surf in feet
5	Beach (underwater) gradient		Gradient; distance from shoreline to 30-ft depth
		1	Flat, <1 on 120; >3600 ft
		2	Mild, 1 on 61 to 1 on 120; 1800-3600 ft
		3	Gentle, 1 on 31 to 1 on 60; 900-1800 ft
		4	Moderate, 1 on 16 to 1 on 30; 450-900 ft
		5	Steep, steeper than 1 on 15; <450 ft
6 and 7	Current		Actual current velocity in miles per hour
8 and 9	Ice thickness		Actual ice thickness in in.
10 and 11	Water temperature		Actual water temperature in degrees Fahrenheit
Biological Environment			
12	Vegetation Ground cover (0-1 ft high)	1	Continuous cover over >75% of the surface except for other, larger plants

CODING TABLES (continued)

Column	Category	Number	Item
13	Low shrubs and grasses (1-3 ft high)	2	Discontinuous cover, 25-75% of the surface, interspersed with patches of bare soil or rock
		3	Sparse cover, <25% of the surface covered by these low plants
		4	Barren, <10% of the surface covered by these low plants and remainder of surface not covered by plants
		5	Regularly spaced low plants (including cultivated crops <1 ft high)
		1	Continuous cover, except for other, larger plants
		2	Discontinuous cover <1 ft high, interspersed with patches of bare soil, rock, or patches of ground cover
		3	Sparse cover, <25% of the surface covered by plants 1-3 ft high
		4	Scattered cover, <10% of the surface covered by plants, 1-3 ft high
		5	Regularly spaced low shrubs and grasses, including cultivated crops, 1-3 ft high
		6	No plants of this size
14 and 15	Brush (3-10 ft high, including branches of larger trees <10 ft from the ground)		Continuous cover
		01	Dense, with foliage, stems with d.b.h. <sup>b</sup> >2 in. spaced <7 ft apart
		02	Dense, without foliage, stems with d.b.h. >2 in. spaced <7 ft apart
		03	Open, with foliage, stems with d.b.h. >2 in. spaced >7 ft apart
		04	Open, without foliage, stems with d.b.h. >2 in. spaced >7 ft apart
		05	Discontinuous cover Dense, with foliage, interspersed with patches of bare soil, rock, or smaller plants

<sup>b</sup>Diameter at breast height.

CODING TABLES (continued)

Column	Category	Number	Item
		06	Dense, without foliage, interspersed with patches of bare soil, rock, or smaller plants
		07	Open, with foliage, interspersed with patches of bare soil, rock, or smaller plants
		08	Open, without foliage, interspersed with patches of bare soil, rock, or smaller plants
		09	Sparse brush, < 25% of surface covered by plants of this height
		10	Regularly spaced plants 3-10 ft high (including cultivated crops and orchards)
		11	No plants of this size
16 and 17	Low trees (10-30 ft high)		Continuous cover (>75% of surface covered by branches and/or foliage)
18 and 19	High trees (30-60 ft high)	01	Dense, large stems, with foliage, stems with d.b.h. > 10 in. spaced < 14 ft apart
20 and 21	Very high trees (> 60 ft high)	02	Dense, large stems, without foliage, stems with d.b.h. > 10 in. spaced < 14 ft apart
		03	Dense, moderate-sized stems, with foliage, stems with d.b.h. > 2 in. spaced < 7 ft apart
		04	Dense, moderate-sized stems, without foliage, stems with d.b.h. > 2 in. spaced < 7 ft apart
		05	Open, large stems, with foliage, stems with d.b.h. > 10 in. spaced > 14 ft apart
		06	Open, large stems, without foliage, stems with d.b.h. > 10 in. spaced > 14 ft apart
		07	Open, moderate-sized stems, with foliage, stems with d.b.h. > 2 in. spaced > 7 ft apart
		08	Open, moderate-sized stems, without foliage, stems with d.b.h. > 2 in. spaced > 7 ft apart
		09	Other (including cane)

## CODING TABLES (continued)

Column	Category	Number	Item
			Discontinuous cover (25-75% of surface covered by branches and/or foliage)
		10	Interspersed with patches of bare soil, rock, or smaller plants, dense, large stems, with foliage, stems with d.b.h. > 10 in. spaced < 14 ft apart
		11	Interspersed with patches of bare soil, rock, or smaller plants, dense, large stems, without foliage, stems with d.b.h. > 10 in. spaced < 14 ft apart
		12	Interspersed with patches of bare soil, rock, or smaller plants, dense, moderate-sized stems, with foliage, stems with d.b.h. > 2 in. spaced < 7 ft apart
		13	Interspersed with patches of bare soil, rock, or smaller plants, dense, moderate-sized stems, without foliage, stems d.b.h. > 2 in. spaced < 7 ft apart
		14	Interspersed with patches of bare soil, rock, or smaller plants, open, large stems with foliage, stems with d.b.h. > 10 in. spaced > 14 ft apart
		15	Interspersed with patches of bare soil, rock, or smaller plants, open, large stems, without foliage, stems with d.b.h. > 10 in. spaced > 14 ft apart
		16	Interspersed with patches of bare soil, rock, or smaller plants, open, moderate-sized stems, with foliage, stems with d.b.h. > 2 in. spaced > 7 ft apart
		17	Interspersed with patches of bare soil, rock, or smaller plants, open, moderate-sized stems, without foliage, with d.b.h. > 2 in. spaced > 7 ft apart

## CODING TABLES (continued)

Column	Category	Number	Item
		18	Other
		19	Sparse cover, trees of this size covering with their branches and/or foliage <25% of the surface, interspersed with bare soil, rock, or smaller plants
		20	Scattered, trees of this size including their branches and/or foliage covering <10% of the surface, interspersed with bare soil, rock, or smaller plants
		21	Regularly spaced trees of this size (including planted trees)
		22	No trees of this size
22 and 23	Animals that caused or contributed to incidents (including vectors or cause of disease)	1.	Large mammals, wild
		2	Rodents, monkeys, and other small mammals
		3	Reptiles (including snakes and crocodiles)
		4	Fish (including piranha, barracuda, and shark)
		5	Insects and other arthropods (including spiders and scorpions)
		6	Molluscs (including snails and octopi)
		7	Coral
		8	Worms
		9	Draft animals
		10	Other domestic animals
		11	Other wild animals
Cultural Environment			
24 and 25	Density per square mile of indigenous population	00	None
		01	0-2
		02	2-4
		03	4-8
		04	8-16
		05	16-32
		06	32-64
		07	64-128
		08	128-256
		09	256-512
		10	512-1024
		11	1024-2048
		12	2048-4096
		13	4096-8192
		14	8192-16,284
		15	16,284-32,768

## CODING TABLES (continued)

Column	Category	Number	Item
		16	32,768-65,536
		17	65,536-131,072
		18	More than 131,072
26	Literacy rate of indigenous pop- ulation (> 6 yr old)		Percentage
		0	0-10
		1	11-20
		2	21-30
		3	31-40
		4	41-50
		5	51-60
		6	61-70
		7	71-80
		8	81-90
		9	91-100
27 and 28	Percent of total indigenous pop- ulation in labor force		Actual percentage of the total population
29 and 30	Percent of the in- digenous labor force unemployed		Actual percentage of the total labor force
31	Employment structure-- agriculture, forestry, and fishing		Percentage of labor force
		0	0-10
		1	11-20
		2	21-30
32	extraction of min- erals (including petroleum)	3	31-40
		4	41-50
		5	51-60
		6	61-70
33	manufacturing and hand trades	7	71-80
		8	81-90
		9	91-100
34	construction		
35	retail and whole- sale trade		
36	transportation, com- munication, and public utilities		
37	finance, insurance, and real estate		
38	professional services		
39	personal services		
40	government (including military services, foreign and domestic)		

CODING TABLES (continued)

Column	Category	Number	Item
41	Social structure Number of re- ligions and re- ligious sects each of which comprises >10% of the population		Actual number
42	Number of language groups each of which comprises >10% of the population		Actual number
43	Agglomeration (largest popu- lation center within a 30- mile radius)	1 2 3 4 5 6 7 8 9 0	Isolated (<10) Settlement (10-50) Hamlet (51-1000) Village (1000-5000) Town (5001-15,000) Small city (15,001-40,000) City (40,001-500,000) Large city (500,001-2 million) Metropolis (> 2 million) Unpopulated (no permanent centers of population)
44	Political structure Number of political parties receiving 10% or more of popular vote		Actual number
45	Type of indigenous government	1 2 3 4 5 6 7 8 9	Authoritarian monarchy Constitutional monarchy Dictatorship (non-Communist one-party system) Republic Protectorate or territory Colony or possession Communist dictatorship Anarchy (little or no effec- tive central governmental control) Other
46	Prepared transpor- tation route den- sity (including roads, railroads, and trails) within a 5.6-mile radius (100 sq mi)	0 1 2 3 4 5 6 7 8 9	Miles of prepared or traveled routes None < 25 26-50 51-100 101-150 151-200 201-250 251-300 301-350 > 350



CODING TABLES (continued)

Column	Category	Number	Item
Geometry			
47	Geometry		Miles
	Length of line	0	< 1/2
	of combat	1	1/2-1
	(Attacker's	2	1-2
	line)	3	2-4
		4	4-8
48	Distance of com-	5	8-16
	mand position	6	16-32
	from line of	7	32-64
	combat	8	64-128
		9	> 128
49	Distance of re-		
	serve or support-		
	ing forces from		
	line of combat		
50 and 51	Range of action during		Yards
	combat incident by	0	< 10
	artillery fires, in-	1	10-50
	fantry maneuver or	2	50-100
	cavalry action	3	100-250
		4	250-600
		5	600-1300
		6	1300-3000 (1 mile)
		7	3000-7000 (3 miles)
		8	7000-15,000 (8 miles)
		9	15,000-35,000 (20 miles)
		10	35,000-75,000 (40 miles)
		11	> 75,000
52-80	Source of information		To be detailed as needed

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